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WILLIAMSON, G.

OBSERVATIONS

ON

THE HUMAN CRANIA,

&c. &c.

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OBSERVATIONS

ON

THE HUMAN CRANIA

CONTAINED IN THE

MUSEUM OF THE ARMY MEDICAL DEPARTMENT,

Fort Pitt, Chatham.

BY

GEORGE WILLIAMSON, M. D.,

STAFF SURGEON, SECOND CLASS.

DUBLIN:
McGLASHAN & GILL, 50, UPPER SACKVILLE-STREET.
1857.

D' Ford Pamphlet

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[From the Dublin Quarterly Journal of Medical Science, May and August, 1857.]

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Dublin: Printed at the University Press, by M. H. Gill.

OBSERVATIONS,

&c. &c.

The skulls contained in the collection have been arranged into four classes: first, the oval-shaped skulls; second, skulls with projecting alveolar processes, or with the nasal bones on the same plane; third, skulls with very prominent superciliary ridges; fourth, skulls with broad and flat face.

The first class includes the Europeans, Egyptians, Afghans, Hindoo, and Singalese; also the New Zealanders and Otaheiteans. The skulls of the last two have not been placed (consecutively, as regards the numbers) with the oval-shaped skulls, but are left among those from Polynesia, being marked as oval-shaped skulls. It was thought advisable to leave them among the skulls from the same group of islands, for the sake of comparison.

The second class embraces the Negroes from the west coast of Africa, the Kaffirs, Hottentots, and Bushmans; those from Mozambique, Madagascar; the black natives from the Mauritius, New South Wales, and Van Diemen's Land. Some of the Kaffir skulls resemble the European; yet the greater number show characters, although differing in many respects from the Negro, still more nearly allied to them than to any other class of skulls. Although the Hottentot and Bushman have not the projecting jaw of the Negro, they have the nasal bones flatter, and on the same plane, and with great breadth between the eyes; the size and form of the anterior nasal apertures are also that of the Negro. The skulls from Mozambique, Madagascar, Mauritius, New South Wales, and Van Diemen's Land, have the aveolar processes projecting.

The third class contains only the Sandwich Islanders. The superciliary ridge is so prominent as to project in the front of the face.

The fourth class includes the Burmese, Malays, Chinese, Esquimaux, and North American Indians. The Malay and Esquimaux show the characters of the broad-faced skulls in the most marked degree, but particularly the latter, which have also other characters peculiar to themselves. The Chinese present the same characters in a moderate form; and the North American Indians show some of the characters of the broad-faced skulls, but have points peculiar to themselves.

The characters stated as marking the four classes of skulls, and the division into races, are those usually found, but there are no characters which are universally present in any race. For example: in the Negro race, the Mandingoes' skulls are well formed, and approach to the European, and show few of the Negro characters; on the other hand, the Kroomen display these characters in their exaggerated form. In the same manner, although in the majority of the Kaffirs' skulls there are characters which distinguish them from other races, yet there are some skulls which resemble the best-formed European. There are, therefore, no characters to be found universally marking any race.

It is very difficult to convey an accurate idea of the various differences observed in skulls, by description. Drawings would, no doubt, greatly assist, yet several views of the same skull would be required, so as to display all its peculiarities: an inspection of the skulls themselves is, therefore, the only way of becoming minutely acquainted with the subject.

The characters of each race have been given as minutely as possible. In the description of each skull, notice is not taken of the form of the anterior nasal aperture, the want of superciliary ridge, the ridge for the attachment of the temporal muscle, the size of the orbits and pterygoid processes, &c., where they agree with the general description given of each particular race; the peculiarities which each present are only noted.

The form of the anterior nasal aperture seems to me to be of great value, when taken in conjunction with the other characters of any particular race. The mere outline which has been given will show, that the difference between the various races is very great; but this is much more apparent on examining the aperture itself, or if a drawing had been given of it, and not a mere outline. In the oval-shaped skulls the lower part of the opening is direct, and the margins sharp. In the Negroes, Kaffirs, Hottentots, and Bushmans, Madagascars, natives of the Mauritius, New South Wales, Van Diemen's Land, Sandwich Islands, and the Malays, the aperture is very wide, and of various forms; the lower angle and the margin of the aperture are rounded off; the superior part of the aperture is also wide, and generally forms a large segment of a circle: in others, the arch is cut off, and forms a straight line. The manner in which this is produced is endeavoured to be explained under the head of the Negroes. There is great difficulty in finding terms appropriate for the various forms. The Ashanti generally are of a rounded form, or like the old Saxon arch; as also the Kaffir, Hottentot, and Bushman; prognathous and broad-faced skulls partake more or less of this form, being also wide, and their angles rounded off. The forms are, however, given of each race or nation. The form of the anterior nasal aperture, in the oval-shaped skulls, is of moderate size, and not nearly so wide as in the other classes; its margins are sharp, and its angle is rounded off, and has something of the form of the old Gothic arch.

The following is the arrangement adopted in the Museum at Chatham:—

Class I.

OVAL, OR SYMMETRICAL SKULLS.

Division.	Nation or Tribe.	No. of Crania.
1	Grecian { Ancient, 18 Modern, 8 }	26
2	Albanian,	1
3	Maltese,	2
4	German,	2
5	French,	1
6	Spanish,	3
7	British,	87
8	Maniacs, idiots, &c.,	82
9	Egyptian { 11 Crania, 2 Mummies, }	13
10	Baluchi and Afghan,	15
11	East Indian { 19 Hindoo, 3 Moorman, 6 Pariah, 1 Thug, }	29
12	Singalese,	5

Class II.

SKULLS WITH PROGNATHOUS JAWS, OR HAVING THE NASAL BONES ON THE SAME PLANE.

Division.	Nation or Tribe.	No. of Crania.
1	Mandingo,	4
2	Iolaf,	1
3	Timmani,	3
4	Sossoo,	2
5	Kasso,	3
6	Kroomen,	5
7	Hausa,	1

Division.	Nation or Tribe.	No. of Crania.
8	Hanti,	1
9	Attan, or Oppas,	2
10	Papas, or Mahai,	3
11	Barconka, or Maka,	2
12	Ibo,	10
13	Ashanti,	61
14	Colabar,	4
15	Kaunga,	3
16	Congo,	3
17	Miscellaneous Africans,	20
18	Kaffir Tambuki, Tribes not known,	15
19	Hottentots 7 Crania, 3 Dried heads,	10
20	Bushman,	9
21	Mozambique 1 Crania, 1 Dried head,	2
22	Madecasse,	3
23	Mauritius,	2
24	Australian,	10
25	Van Diemen's Land,	2

OVAL SKULLS.

Division.	Nation or Tribe.	No. of Crania.
13	New Zealanders 4 Crania, 2 Dried heads,	6

Class III.

SKULLS WITH THE SUPERCILIARY RIDGE SO PROMINENT AS TO OVERSHADOW THE FACE.

Division.	Nation or Tribe.	No. of Crania.
1	Sandwich Islanders,	5

OVAL SKULLS.

Division.	Nation or Tribe.	No. of Crania.
14	Otaheitean,	1

Class IV.

BROAD AND FLAT-FACED SKULLS.

Division.	Nation or Tribe.	No. of Crania.
1	Burmese, Malays, &c.,	9
2	Chinese 3 Crania, 1 Dried head,	4
3	Esquimaux,	1
4	American Indians 2 Round Crania, 2 Flat-headed,	4

CASTS OF CRANIA.

Casts of eminent men,	6
,, Murderers, &c.,	17
,, Africans' and Madagascar crania,	2
,, Australian crania,	2
,, American crania,	2

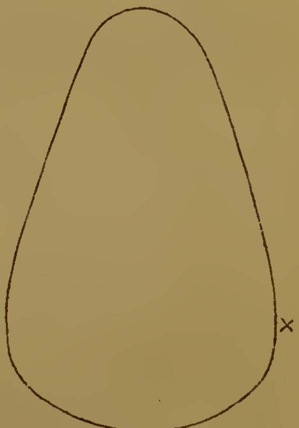
CLASS I.—OVAL, OR SYMMETRICAL SKULLS.

The head is of a round or oval shape; the forehead expanded; the maxillary bones and the zygomatic arches are so formed as to give to the face an oval shape, nearly on a plane with the forehead and cheek bones, and not projecting towards the lower part, as in other varieties of the human skull; the cheek bones neither project outwards and laterally, nor forwards; the upper maxillary bone has the alveolar process well rounded, the anterior portion having a curve in a perpendicular direction; this gives a perpendicular and not a projecting position to the front teeth, to which the lower jaw and its teeth correspond.

DIVISION 1.—GRECIAN.

There are twenty-six Greek skulls, of which eighteen are ancient, and eight modern.

The Greek skulls display in the highest degree the above general description of oval crania. The skull approaches to a spherical figure, with a remarkable elevation of the upper part, the forehead being highly and beautifully arched; the surface smooth, and without any irregular projecting angles; the superciliary ridges not much raised; the jaws are on a straight, perpendicular line, and the bones of the face are generally of small size; the superior maxillary bones, under the aperture of the nostrils are joined in a nearly perpendicular plane; the cheek bones even, and turned moderately downwards; the anterior nasal aperture is of moderate size, and of this form (No. 4), which is the same in all oval-shaped skulls; the margin of the aperture, from the point marked ×, is sharp, and not rounded off, as in the Negroes, Kaffirs, &c.; the portion of the superior maxillary bone forming the base of the opening is of moderate extent, and much smaller than in them; the external pterygoid process is not so large as in skulls of some other Indo-European nations; the orbits, likewise, are of moderate size, and of a circular form; the occiput is well rounded, and does not in general project; the space for the downward projection of the brain, in the occipital region, is well developed; the cranium is thinner, more dense and transparent, and of finer texture, than other races. Ossa triquetra were found in the occipital suture in ten, and in the temporal and sphenoid sutures in six instances. In one, the occipital foramen was small. There was a suture in the frontal bones in four instances.



No. 4.

No. 2. Ancient Grecian, from Samos.—A beautiful oval skull; forehead broad, high, and well arched; ridge for the attachment of muscles scarcely visible; bones of the face small; nasal bones small, but arched; structure of the bones of the skull of fine texture, and dense.—*Donor, Dr. M'Arthur, Surgeon, 90th Regiment.*

No. 8. Grecian, from Corfu.—Skull small, and of a peculiar square form; forehead high, and beautifully arched; vertex broad and flat; bones of face and forehead forming an angle of 85°.—*Donor, Dr. Davy, A.I.H.*

No. 20. Grecian, from an ancient tomb at Samos.—Cranium beautifully formed; forehead and vertex high, and extremely well arched, and the former making with the bones of the face an almost perpendicular line, or angle of 87°; orbits nearly circular; part of the base of the skull deficient.

DIVISION 2.—ALBANIAN.

No. 27. Skull of an Albanese.—Cranium well formed; forehead rather receding; a very large os triquetrum on the left side of the occipital suture.—*Purchased from the Mechanics' Institution, Chatham.*

DIVISION 3.—MALTESE.

No. 28. Cranium of a Maltese male, aged 42.—Cranium well formed.—*Donor, Dr. Lawson, A.S. Surgeon.*

DIVISION 4.—GERMAN.

The two German crania are large and round, with the anterior part elevated and fully developed; they have this peculiarity of form in a greater degree than either the French, Spaniard, or English. In No. 30, the transverse diameter of the base of the cranium is great, compared to the antero-posterior diameter; the space for the downward development of the brain is also great in both skulls.

No. 30. Skull of a German.—Cranium large and round; forehead and vertex high, broad, and well arched, and fully developed; occipital bone, and base of the skull, broad and flat; the transverse diameter is very great compared to its antero-posterior; the frontal bone, and the bones of the face, form almost a perpendicular line.—*Donor, Dr. Davy, A. I. H.*

DIVISION 5.—FRENCH.

No. 32. Skull of Pierre Delille, a Frenchman, aged 36.—Cranium large, round, and well formed; forehead high, and well arched; vertex high; superciliary ridge well marked; a deep, depressed line at the junction of the frontal and nasal bones; bones of the face large; lower jaw thick and strong.—*Donor, Mr. R. Clarke, Sierra Leone.*

DIVISION 6.—SPANIARDS.

There are three skulls of Spaniards.—The forehead is rather narrow, but in other respects they are well formed. In No. 34 the face is narrow, and the malar bones are flat on the head; Wormian bones are found in the occipital suture in one, and in the temporal and sphenoid suture in one; the foramen magnum is small in one.

No. 34. Skull of Bekely, a Spaniard, aged 21, engaged in the slave trade, who died at Sierra Leone.—Forehead narrow; left side of occiput projects more than the right side; face narrow and short, and has a contracted appearance; malar bones flat on the head, and proceed directly backwards.—*Donor, Mr. R. Clarke, Sierra Leone.*

DIVISION 7.—NATIVES OF GREAT BRITAIN.

There are eighty-seven crania of natives of Great Britain in the collection. The skulls were taken from soldiers, a class of men who are frequently wholly uneducated, and their mental faculties undeveloped, and are therefore not the best specimens of British skulls. I have not thought it necessary to separate the English, Scotch, and Irish, as the races are now so mixed that, if there were ever any difference or peculiarity in the confirmation of their crania, this has now become inappreciable. For those who are curious on this point, I have, when able, given the countries. As rather exaggerated specimens (with also some individual peculiarity) of the Celtic race, I may mention No. 117, a Scotch Highlander, and No. 118, an Irish rebel. Both show marks of belonging to an uncivilized or mountainous race: the bones of the Highlander are large, thick, and coarse in texture; those of the Irishman are thick, dense, and polished like ivory.

Nos. 43 and 61 also present individual peculiarities, which will be seen on referring to the description of the skulls.

The skulls of the inhabitants of Great Britain, and I may also include the few French, Spaniards, and Portuguese in the collection, are not of such a round shape as the Greek or German, but are more oblong, and their antero-posterior diameter is greater compared to the transverse diameter.

Wormian bones were found in the occipital suture in thirty-eight instances, and in one they were of a large size; these bones were also found in the temporal and sphenoid suture in eight instances; the occipital foramen was large in three, and small in four; a suture was found in the centre of the frontal bone in eight instances.

No. 43. Skull of Joseph Hudson, 40th Regiment, an Englishman, aged 21, who died of phthisis.—Cranium of large size, and of great weight—2 lbs. 4 oz. 3 drs.,—being 1 lb. more than the average weight; the section of the calvaria shows the bones to be of great thickness, being a quarter of an inch thick; the diplöe is of great extent; and the inner surface of the skull shows large, deep grooves and arborescence for the meningeal arteries; the forehead is high, and the vertex extremely flat and broad; the parietal protuberances are prominent, and between them, along the sagittal suture, there is a depressed groove; the coronal and sagittal sutures are obliterated; all the bones of the skull, with the exception of the temporal and sphenoid, and the bones of the face, are of the same thickness, and affected with the same disease.

No. 61. Skull of Stephen Robinson, 8th Regiment, an Englishman, aged 31.—Cranium of a most remarkable form, having a canoe or coffin-like shape, the head being of great length, and very narrow in proportion, sloping gradually, and becoming very contracted towards the sagittal suture, where it forms a narrow ridge; the occiput projects; the forehead is high, rather narrow in proportion to the size of the head, but well arched; sagittal suture obliterated; superior maxillary bones large.

No. 117. Skull of Scottish Highlander.—Cranium of great weight, viz., 2 lbs. 3 oz. 2 drs., being about 1 lb. more than the average weight; bones of great thickness and density, coarse, and the angles very prominent; forehead low and receding; superciliary ridges very prominent; bones of the face large; lower jaw large, and of great depth.

No. 118. Skull of Felix M'Dermott, an Irish rebel chief, who was killed at the battle of New Ross, county of Wexford. —Forehead rather low; superciliary ridges large, prominent; bones of great density, and highly polished, resembling ivory. —*Donor, Mr. Carline, Assistant Surgeon, 6th Dragoon Guards.*

DIVISION 8.—MANIACS.

Out of eighty-two crania of maniacs, the skull was found well formed in thirty-five; in forty-three the forehead was low, receding; narrow, or the anterior part small; in two, circular or round,—one of a square shape, one not symmetrical; the bones were thin in six, thick in six; small depressions for the glandulæ Pacchioni along the course of the longitudinal sinus in twenty-five, but no holes in any of them; arborescence, or marks of vascularity, on the inner table, chiefly in the course of the longitudinal sinus, in seventeen.

In eighty-two skulls of natives of Great Britain, all from soldiers of sound mind, the forehead was low and retreating in twenty; in two, not symmetrical; one, oblong; one, No. 61, circular or round; one, square; bones thin in three, thick in six; small depressions along the curve of the longitudinal sinus in twenty-nine; a small hole in one; arborescence, or marks of vascularity, in nineteen.

From the above statement it appears that the foreheads of maniacs are low, receding, narrow, or the anterior part small, in nearly the proportion of 2 to 1 of those of sound mind, and that all the other peculiarities which have been noted are nearly as frequently found in skulls from sane individuals; depressions or arborescence are only accidental appearances; bony projections were not found in one instance.

From the details given of the appearances after death, in fifty cases of maniacs, the following is the result:—The brain was healthy in twenty-two; in twenty-eight there was serous effusion at the base of the brain, or in the ventricles; membranes injected in eleven; in five, thickening of the membranes; effusion of lymph on the membranes in five; softening of some portion of the brain, generally of the corpus striatum or fornix, in ten; brain firm in five; the gray matter adhering to the pia mater, on being torn off, in three; ecchymosis below the membranes in two; an old apoplectic cell in one; small serous cysts in the corpus striatum in one; dura mater adhering intimately to the bones in two; dura mater thin along the course of the longitudinal sinus in one; a softened, fibrinous clot in the longitudinal sinus in one; longitudinal sinus vascular in one; a large opening in the falciform process in one; a cartilaginous tumour adhering to the arachnoid in one; calcareous matter in the choroid plexus in one; atheromatous deposit in the cerebral arteries in two; arteries small in one, enlarged in one; brain oblong and flattened in one; adhesions between the hemispheres in three. The average weight of six brains of maniacs, 2 lbs. 14 ozs. 6 drs.; of healthy brains, 2 lbs. 15 ozs. 1 dr.; in seven instances the liver is mentioned as usually small, and the spleen in six.

The greater number of these appearances are very commonly found in cases where there is no mental affection, such as injections, serous effusions, and opacity of the membranes, softening of the brain, &c., which depend very much on the disease immediately causing death, and the length of the time after death at which the body was examined. Even these changes, which have just been mentioned, so various and uncertain, can hardly be supposed to be the cause of insanity. It seems to depend more on a disease of the mind than of the organic structure of the body. Of fifty-seven cases, ten died of phthisis, five from serous apoplexy, four with convulsions, two from erysipelas, one from enlargement of the glands of the neck, one from cancerous ulceration of the stomach, and in twenty-seven the cause of death is not known.

DIVISION 9.—EGYPTIAN.

There are eleven skulls, and two mummies' heads: the skulls of mummies in the collection have the oval figure which prevails among Europeans. The crania are all well formed; the temporal ridges are very extensive, and situated high on the skull; the forehead is high and smooth, and generally without any marked superciliary ridges; the nasal bones are high and well arched, and the upper jaw straight; the teeth are all flat, and smooth on the summit; the incisors are small, thick, and round, not, as usual, flattened with sharp edges, but resembling truncated cones; the cuspidati are not pointed, but broad and flat like the neighbouring bicuspidati: this is attributed to mechanical attrition, depending on the nature of the food which the teeth were employed in masticating; the meatus auditorius is not placed higher on the head, but it is situated on the same plane with the base of the nose; the bones are firm and dense, but not more than in other races, and the proportionate weight of the crania is not greater. The hair was not woolly in any of the heads when brought here as mummies; it was fine, and disposed to be curled and frizzled. No. 208 approximated in some degree to the Negro, by having the alveolar processes of the superior maxillary bone broad in front, and projecting, and the ridge for the attachment of the temporal muscle extensive, and high on the head; the nasal bones are, however, high and well arched; the anterior nasal aperture is of the European form. Wormian bones were found in the occipital suture in three; and in the temporal and sphenoid suture in three instances. The occipital foramen was large in one, and small in three.

No. 205.—Cranium large and well formed; forehead high, smooth, and well arched; posterior part of head large; ridges for the attachment of the temporal muscle situated high on the skull, ascending to the parietal protuberance; the alveolar processes are absorbed.—*Donor*, *Dr. Mahony*, *D. I. G.*

No. 206.—Cranium well formed; forehead high and well arched; parietal protuberance and occiput prominent; ridge for attachment of the temporal muscle high on the head; alveolar process of the superior maxillary bone large, broad in front, and slightly projecting; nasal bones not highly arched.—*Same Donor.*

DIVISION 10.—BALUCHI AND AFGHANS.

The skulls of Baluchi and Afghans are large, and are very good specimens of the oval-shaped skulls, and resemble the best-formed Greek or European. They are generally of an oval or round figure; the forehead and vertex is high and well arched; the occiput is well rounded, and the space for the downward development of the brain is considerable; the superciliary ridge is well marked, and in many of them is prominent; the ridge for the attachment of the temporal muscle is situated high on the head in some of them, but not more than in Europeans; the nasal bones are high and well arched; and the alveolar processes of the upper jaw are perpendicular; the anterior nasal aperture is of the European form. In Nos. 220 and 229 it is rather large and wide; the teeth are sound, regular, and beautifully white. No. 228 is peculiarly formed, and bears some distant resemblance to the skull of the flat-headed American Indians. The bones are hard, of fine texture, thin and transparent. Wormian bones were found in the occipital suture in four, and in the temporal and sphenoid suture in two. The occipital foramen was small in three. There was a suture in the centre of the frontal bone in two.

No. 219.—Skull of an Afghan, killed at the attack upon Candahar, on the 11th of March, 1842. Cranium large, oval, and beautifully formed; forehead high and well arched.—*Donor, Dr. M'Andrew, Surgeon, 40th Regiment.*

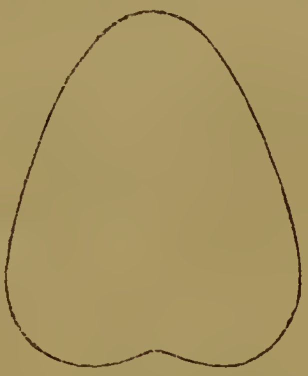
No. 220. Skull of an Afghan peasant, killed in action on the 11th of March, 1842, at Candahar.—Cranium well formed: forehead rather low and receding; superciliary ridge prominent; a very distinct groove running into the lachrymal canal on the nasal process of the superior maxillary bone; anterior nasal aperture of considerable width; and the alveolar processes are broad in front, and slightly everted.—*Same Donor.*

No. 228. Skull of an inhabitant of Candahar, killed in action near Candahar.—Forehead broad, flat, and receding gradually upwards towards the vertex, which is also broad and flat; the occiput is likewise broad, flat, and perpendicular, giving it something of the appearance of the flat-headed American Indians, although in a much less degree.—*Same Donor.*

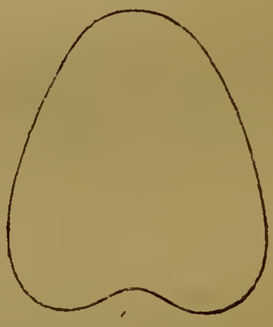
No. 229. Skull of a Mogul, killed in action near Candahar, March 8, 1842.—Cranium large and well formed; superciliary ridge prominent, and a depression at the junction of the frontal and nasal bones; a suture in the centre of the frontal bone; anterior nasal aperture large.—*Same Donor.*

DIVISION 11.—EAST INDIANS.

There are twenty-five crania of the different races and casts from the Indian peninsula. They are not so well formed nor such fine skulls as the Afghans. The cranium is of an oval form, rather narrow compared with the longitudinal diameter, which is frequently very great; the forehead is small and not much expanded; the posterior part of the skull is large, and the occiput prominent; the space for the downward development of the brain is of moderate extent; the ridge for the attachment of the temporal muscles is not, in general, strongly marked; the superciliary ridge is generally marked, but not prominent; the bones of the face are rather small; the nasal bones are arched, but not so highly as in Europeans; the alveolar processes are usually straight, but in some skulls they are somewhat everted and projecting; the anterior nasal aperture is generally of the European form. In No. 233, however, it is of the form represented, and also in No. 248, but this last is an exception. The teeth are sound and regular, and their surfaces worn down; Wormian bones were found in eleven instances out of the twenty-five in the occipital sutures; in the temporal and sphenoid suture in three instances; in two the sphenoid was entirely cut off from the parietal by a process of the temporal bone; the lachrymal canal was formed entirely on the nasal process of the superior maxillary bone in one; the occipital foramen was large in one, and small in five.



No. 233.



No. 248.

No. 233. Skull of a Brahmin.—Forehead smooth, low, and narrow, and without any superciliary ridge; occiput prominent.—*Donor, Dr. Brown, D. I. G.*

No. 239. Skull of a Hindoo.—Cranium small and well formed; forehead high and well arched; occiput prominent; large ossa triquetra in temporal and sphenoid sutures; alveolar processes of superior maxillary bone projecting; teeth coated with a black incrustation.—*Same Donor.*

No. 248. Skull of a Moorman.—Cranium oval and well formed; nasal bones flat and on the same plane, with considerable breadth between the eyes; alveolar processes rather everted and long; numerous ossa triquetra at the superior angle of the occipital bone; sphenoid entirely out from the parietal by a process of the temporal bone; anterior nasal aperture wide, and approaching to the Negro form (see illustration).—*Same Donor.*

No. 251. Skull of a female Pariah, lowest caste.—Cranium narrow and flattened laterally; forehead high, but narrow; orbits small and contracted; external pterygoid process large; superciliary ridge not marked.—*Same Donor.*

No. 257. Skull of Kahan Mahan, a notorious Thug, who had been engaged in at least sixty different murders. He died in the Thug gaol at Lucknow, East Indies, 1840, where he had been imprisoned five years; he was about sixty-five years of age, a good-looking man.—Cranium narrow; forehead low and receding; superciliary ridges prominent; ridge for the attachment of the temporal muscle very extensive and well marked; occiput prominent; the bones are dense, thin, and transparent. *Donor, Dr. Menzies, 2nd Class S. S.*

DIVISION 12.—SINGALESE.

There are five crania from Ceylon. The cranium is of an oval form; the forehead is low and retreating; the vertex and occiput are well rounded; the space for the downward development of the brain is of moderate extent; the ridge for the attachment of the temporal muscle is not extensive nor strongly marked, except in No. 258; the superciliary ridge is well marked; the nasal bones are well arched; the alveolar processes are generally straight, but project somewhat in No. 258 and No. 260; the anterior nasal aperture is of the European form; Wormian bones were found in the occipital suture in two instances, in one of which they were of large size, cutting off the superior angle of the occipital bone; these bones were also found in the temporal and sphenoid suture in one; the foramen magnum was small in one.

No. 258. Skull of a Singalese, aged 48. A native of the district of Galli Ceylon, who was executed for murder in October, 1836. His character was very bad, and all his acts were committed in the most concealed manner.—Forehead low and receding; posterior part of head rather large; alveolar processes of the superior maxillary bone large and projecting; a large os triquetrum in the temporal and sphenoid suture; ridge for the attachment of the temporal muscles extensive and well marked.—*Donor, Dr. Sillery, Surgeon, 35th Regiment.*

No. 260. Skull of a Singalese.—Forehead low and retreating; lachrymal canal large; alveolar processes of the superior maxillary bones rather long and projecting.—*Donor, Dr. Davy, A. I. H.*

CLASS II.—SKULLS WITH PROGNATHOUS JAWS; OR THE NASAL BONES FLAT, AND ON THE SAME PLANE.

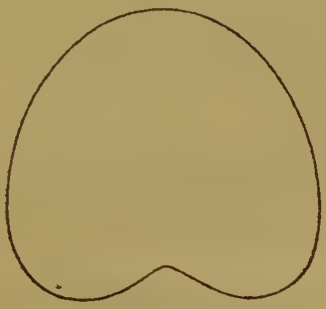
The cranium or cavity destined to contain the brain is oval and well formed. The superior maxillary bones are somewhat lengthened, and project forward; the alveolar processes of both jaws are long, broad in front, everted, and projecting, more particularly those of the superior maxillary bone. The nasal bones are large, frequently oblong, and lie on the same plane; the nasål processes of the upper jaw are also large, which causes great breadth between the eyes. The anterior nasal aperture is large and wide, and of various forms, which differs in a remarkable manner from that of the oval-shaped skulls.

NEGROES FROM THE WEST COAST OF AFRICA.

The chief peculiarities in the general form of the strongly marked Negro skull are the great forward projection of the superior maxillary bones, particularly of the length, and eversion of the alveolar processes. In general the superior maxillary bone does not project, nor is the skull compressed laterally; this occurs only in the exaggerated specimens of the Negro race, and out of 128 African crania these strongly marked peculiarities are only found in two instances, viz., No. 329 and No. 377. With the exception of the Kroomen, and those already mentioned, the upper jaw does not project in front of the frontal bone; the alveolar processes alone project, and in some are only everted. The nasal bones are large, generally oblong, and lie on the same plane; the nasal processes of the superior maxillary are large and broad, causing great breadth between the eyes. The anterior nasal aperture is large and wide, and its angle rounded off. They vary in form, being in some of a rounded, in others of square form, and are very different from European.

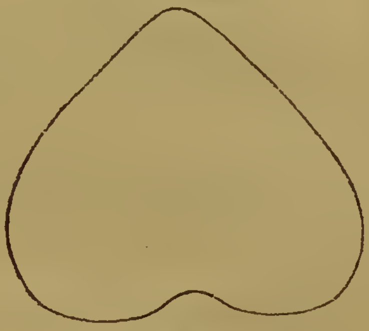
In the European skulls the nasal bones are highly arched, and a very small portion only of the superior maxillary enters into the formation of the base of the anterior nasal aperture. But in the Negro, and in many other races, this aperture is generally very large inferiorly, and its two lower angles rounded off. The alveolar processes in them are large, projecting, broad in front, and form a larger segment of a circle. The size and

Ibo.



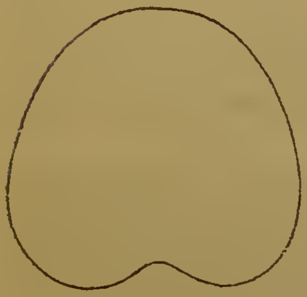
No. 299.

Mandingo.



No. 263.

Ashanti.



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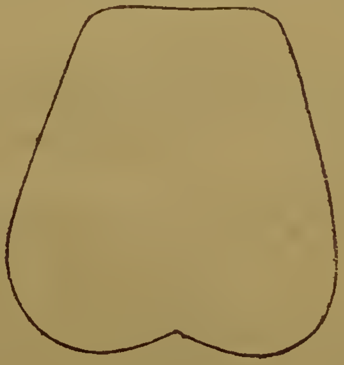
Ashanti.



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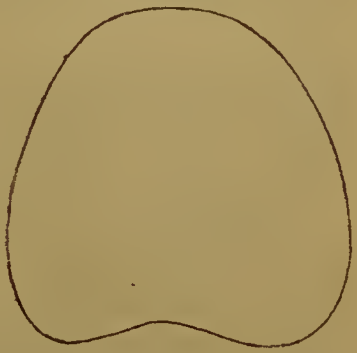
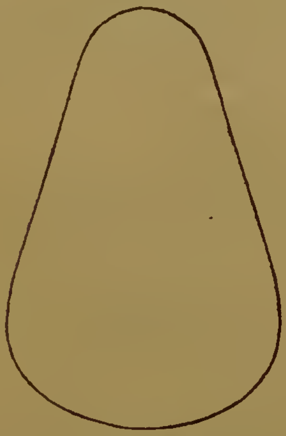
Negro.



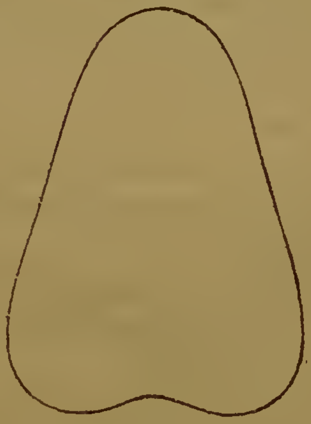
No. 371.

Grecian.



No. 4.

English.



No. 89.

form of this aperture is produced by a larger portion of the superior maxillary entering into the formation of the base of the opening; the size and position of the nasal bones, which are almost always on the same plane; the large size of the nasal processes of the superior maxillary bones, and the great breadth between the eyes; thus giving a round or square form, or a form difficult to describe in words, to the opening, which differs very remarkably from the European.

The posterior nares are not generally large, but in some skulls the pterygoid processes stand farther apart, and are stronger, particularly the external pterygoid plate, which in many is broad, flat, and turned outwards.

The zygoma is of the usual size, and has the same direction as in the oval-shaped skulls; in some few instances they project forwards and downwards, but not outwards, as in the broad-faced crania.

The cranium is of an oval form, and not compressed laterally; the forepart of the head is small, compared to the posterior. The forehead is high and well arched, smooth, and without any marked superciliary ridge; the frontal sinuses are very small, or almost absent. The ridge for the attachment of the temporal muscle is very generally of small extent, and not well marked, as also those on the occiput. The orbits are in general larger, more capacious, and of a circular or square form; but in some they are smaller.

Wormian or triquetral bones are as frequent in Negro as in European crania. Out of 128 Negro skulls, these bones were found in seventy-two instances in the occipital suture; and in twelve additional instances, one, sometimes two, or even more, very large ossa triquetra at the superior angle of the occipital bone, occasionally dividing it into parts, or cutting off its superior angle.

In the same number of Negro skulls, small Wormian bones were found in the temporal and sphenoid suture in ten instances.

The sphenoid was entirely cut off from the parietal bone, by a process of the temporal bone, in thirteen out of 128, but in the greater number the sphenoid joins the parietal bone to a greater or less extent, and frequently for the space of a quarter of an inch.

The lachrymal canal is in general very large, and the depression on the lachrymal bone for the lachrymal sac is frequently very small.

In the 128 skulls the lachrymal groove was formed entirely on the nasal process of the superior maxillary in eleven instances, and in some instances the lachrymal bone was very small, or almost absent.

The occipital foramen is generally of the usual size, but in thirteen instances it was thought to be small, and in five large, in proportion to the size of the cranium. The position of the foramen magnum was found to be exactly behind the transverse lines bisecting the antero-posterior diameter of the base of the cranium, which is the position in European skulls. In those Negro skulls which have the alveolar processes long and projecting, the anterior half of the line is lengthened in some degree, but if allowance is made for it, there is no perceptible difference. The situation of the foramen magnum is, therefore, the same in Negro as in European skulls.

The external meatus is not larger, nor in any way different from Europeans.

The mastoid and styloid processes are in general of moderate size, in some small, and in others large, but there is nothing constant in this respect. In none of the Negro skulls was there the slightest trace of a suture resembling an intermaxillary bone. The infra-orbital canal was found in some skulls rather larger than in European, in others smaller, but generally about the same size; the different foramina for the transmission of nerves likewise varied in size, but there was nothing constant in this respect.

The lower jaw is in general neither thicker nor stronger, and the angle is the same as in Europeans; the part covered by the masseter muscle is not large and rough.

The teeth are generally strong, thick, and sound, and the incisors long and sharp. The number of the teeth is the same as in Europeans; in two skulls, No. 321 and No. 352, there are eighteen teeth in the upper jaw; the supernumerary tooth is a bicuspidate, which has partly descended, but there is not space enough in the alveoli, and the teeth are there partially displaced. In No. 348 there are nine teeth in the left superior maxillary bone, and eight in the right; and the teeth of both sides are quite regular, and not displaced. The sockets for the teeth are generally very deep, ascending as high as the nasal aperture.

DIVISION 1.—MANDINGOES.

The Mandingo skulls are the best formed of the Negroes in the collection. Their skulls are large, oval, and capacious; in No. 263, the breadth between the eyes, the flattening of the nasal bones, and the form of the anterior nasal aperture, are the only Negro characters; No. 266 resembled a European skull in every particular, with the exception of the alveolar processes being slightly everted. No. 264, with 285, are the only instances in which the teeth are not sound or are displaced from their sockets. Wormian bones were found in two instances. In two the lachrymal groove was formed entirely on the nasal process of the superior maxillary bone; and in two the occipital foramen was small.

No. 263. A Mandingo-man's skull.—This skull does not display much of the negro peculiarities. The cranium is of an oval form; the forepart of the head is rather small compared to the posterior, but the forehead is arched, and nearly perpendicular with the bones of the face. The ridge for the insertion of the temporal muscle is rather extensive and well-marked. The nasal processes of the superior maxillary bone are large, and the nasal bones are nearly on the same plane, and form a smooth continuous surface with the forehead. The alveolar processes have a circular sweep, but they do not project. The lachrymal canal is rather large, and formed entirely on the nasal process of the superior maxillary.—*Donor, R. Clarke, Esq., Surgeon.*

No. 264. A Mandingo-man's skull.—Cranium large and well formed; forehead straight and well arched; superciliary ridge marked. Nasal processes of the superior maxillary bones large and flat, and the two from the opposite sides join at the frontal bone, so as to exclude the nasal bones from the frontal. The alveolar processes of the superior maxillary bones are very large and projecting. The teeth are very irregular in their sockets, which are very deep; the surfaces of the molar teeth are worn down to the fangs on their outer side, and those of the lower jaw are displaced inwards. The ramus of the lower jaw is very broad and expanded.—*Same Donor.*

No. 266. A Mandingo-man's skull.—The cranium is oval and well formed, and has very little of the Negro peculiarities. Ridge for the insertion of the temporal muscle strongly marked immediately above the mastoid process. The nasal bones are prominent and arched; the alveolar processes are very slightly everted.

DIVISION 2.—IOLOFS.

The skull is large, oval, and well formed. It has the Negro character in the position of the alveolar processes, and the nasal bones, and the form of the anterior nasal aperture.

No. 267. Skull of an Iolof-woman.—Cranium large, oval, and well formed; nasal bones large and slightly flattened; alveolar processes project, and are partially absorbed from advanced age, the teeth having dropped out; lachrymal canal of large size.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 3.—TIMMANIS.

These three skulls are large and capacious. No. 268 is compressed laterally, and there is a bulging in the temporal region. The cranium of No. 269 is beautifully arched, but the Negro peculiarities are strongly marked in the breadth and flatness between the eyes, the form of the anterior nasal aperture, and the projection of the alveolar processes.

Ossa triquetra were found in the three Timmanis' skulls in the occipital suture; in one they were large and numerous, in another a suture cut off the superior angle of the occipital bone. Wormian bones were found in one instance in the temporal and sphenoid suture.

No. 268. A Timmanis-woman's skull.—Cranium compressed laterally, and bulging into the region of the temporal bone; no ridge for the insertion of the temporal muscles; forehead and vertex high; nasal bones high and arched; bones of the face small; alveolar processes projecting; orbital plate of the frontal bone arborescent, and shows marks of vascularity; the coronal and sagittal sutures are obliterated; the occipital bone has not a sharp angle, but forms almost a straight line across the head at its superior part; lower jaw thick and rounded, and its angle obtuse.—*Donor, R. Clark, Esq., Surgeon.*

No. 269. A Timmanis-woman's skull.—Cranium large and well formed; the forehead is broad, high, smooth, and well arched; the occiput is rather prominent, there are numerous large ossa triquetra in both sides of the occipital suture, and one between the sphenoid and parietal bones; there is great breadth between the eyes, and the nasal bones are on the same plane; the alveolar processes are long and very projecting; the orbits are small, and the orbital plate of the frontal bone shows marks of vascularity.—*Donor, R. Clark, Esq., Surgeon.*

DIVISION 4.—SOSSOO, OR SUSUS.

These two crania are oval and well formed, and the bones are of fine texture. They have the Negro peculiarities, but not strongly marked. No. 272 has them only in a slight degree.

Wormian bones were found in the occipital suture in one instance, and in the temporal and sphenoid suture in one. The foramen magnum is small in one.

No. 272. Skull of a Sossoo boy.—Cranium of an oval form, and well formed, and has few of the Negro characters; ridge for the insertion of the temporal muscle of small extent, and not well marked; one os triquetrum between the sphenoid and parietal bones; nasal bones oblong, and on the same plane; alveolar processes project; lachrymal canal is large.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 5.—KASSO.

These three skulls are oval and well formed. Two are from young subjects, and in them the mastoid processes are small, and the space for the downward development of the cerebellum is rather great. The alveolar processes project, but not to a great degree. The nasal bones are oblong, and on the same plane in No. 273 and No. 274. In No. 275 the superciliary ridge is marked, and the nasal bones are arched. Ossa triquetra were found in the three skulls; in one they were very large and numerous. In one the sphenoid was entirely cut off from the parietal by a process of the temporal bone. Foramen magnum large in one.

No. 273. Skull of a Kasso or Cassoo girl.—Cranium of an oval form; forepart of the head small compared to the posterior; forehead high, and nearly perpendicular with the bones of the face; insertion of the temporal muscle of small extent, and not well defined, as also those on the occiput; parietal protuberance prominent; several large ossa triquetra; sphenoid bone entirely cut off from the parietal by a process of the temporal bone; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but on the occipital bone; great breadth between the eyes; nasal bones flat; alveolar processes projecting; the lateral part of the ramus of the lower jaw is very small and narrow, and the angle obtuse; socket for the teeth of great depth.—*Donor, R. Clarke, Esq., Surgeon.*

No. 274. Skull of a Kasso, or Cassoo boy.—Cranium compressed laterally; forepart of head small compared to the posterior; forehead high and smooth, and nearly perpendicular with the bones of the face; space for insertion of the temporal muscle of small extent, and not well marked, as also those for the muscles on the occiput; eighteen large ossa triquetra in the occipital suture; zygomatic arch small; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but on the occipital bone; nasal bones elevated and slightly arched, but rather broad; alveolar processes project; angle of the lower jaw obtuse.—*Donor, R. Clarke, Esq., Surgeon.*

No. 275. Skull of a Kasso, or Cassoo man.—Cranium large and well formed; forehead broad and high; superciliary ridge slightly marked; occiput prominent; no marked insertion for the temporal or other muscles; considerable breadth between the eyes, but the nasal bones are arched; the alveolar processes seem to have projected, but they are partly absorbed and destroyed; lachrymal canal of large size.

DIVISION 6.—KROOMEN.

These five skulls display the Negro peculiarities in a high degree. The superior maxillary bone projects very much, and likewise the alveolar processes, which are very long. The breadth between the eyes is great, and the nasal bones are on the same plane, with the exception of No. 276, which are arched, and the superciliary ridge prominent. No. 277 is an exaggerated specimen of the Negro. No. 280 is of a peculiar square form. None of these skulls are, however, compressed laterally. Wormian bones were found in three instances in the occipital suture, in one of which there were three large bones cutting off the superior angle of the occipital. In one the sphenoid was entirely cut off from the parietal by a process of the temporal bone. In one there was a suture in the centre of the frontal.

No. 276. Skull of a Krooman, Samuel Williams, aged 26, who died of dysentery; was engaged in the slave trade as a labourer, and bore a good character.—Cranium large, oval, and the longitudinal diameter considerable, but not compressed laterally; forehead large and high; superciliary ridge marked, and a depression at the junction of the frontal and nasal bones—vertex flat; a suture in the centre of the frontal bone; nasal bones high and arched; alveolar processes very long and projecting, and of great depth from the crown of the teeth to the palate; lachrymal canal of large size; external plate of the pterygoid large; styloid process long and strong; the anterior part of the ramus of the lower jaw is of great depth.—*Donor, R. Clarke, Esq., Surgeon.*

No. 277. Skull of a Kroo boy.—Cranium compressed laterally; forepart of the cranium small and narrow compared to the posterior; insertion of the temporal muscles of small extent, and not well marked, as also those on the occiput; mastoid processes very small; considerable breadth between the eyes, and the nasal bones are on the same plane; alveolar processes projecting; the first set of teeth have not been shed; the permanent teeth are seen descending.—*Same Donor.*

No. 280. Skull of a Krooman. — Cranium of a square shape; vertex broad and flat, and a depression along the sagittal suture, separating the parietal protuberances; forehead high, broad, and well arched; sphenoid cut off from the parietal by a process of the temporal bone; considerable breadth between the eyes; nasal bones somewhat flattened; alveolar processes very long and projecting; lachrymal canal very large; styloid processes strong, and of considerable strength.—*Same Donor.*

DIVISION 7.—HAUSA.

This skull shows the Negro characters usually found in skulls of young subjects.

No. 281. Skull of a Hausa boy.—Cranium narrow; the forepart of the head is small compared to the posterior; a projecting angle on the centre of the frontal bone; ridges for the insertion of muscles not marked; nasal bones oblong, and on the same plane; alveolar processes projecting; lachrymal canal large.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 8.—FANTI.

This is a large, heavy, but well-formed skull, and the Negro peculiarities are strongly marked, but not in an exaggerated degree. There is a large os triquetrum cutting off the superior angle of the occipital bone.

No. 282. Skull of a Fanti. — Cranium large, oval, and well formed; forehead broad, and well arched; a very large os triquetrum cutting off the superior angle of the occipital bone; bones of the face large and broad; great breadth between the eyes, and the nasal bones are on the same plane; lachrymal canal very large; alveolar processes describe a large semicircle, and project considerably; pterygoid process large and strong, particularly the external plate; styloid process also large and strong.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 9.—ATTAN, OR APPA.

These two skulls are large, well formed, and show the Negro peculiarities in a marked but not exaggerated degree, especially No. 283. In No. 284 the nasal bones are small and slightly arched, and the superciliary ridge marked. Wormian bones are found in the occipital suture of both.

No. 283. Skull of an Attan or Appa-man.—Cranium large and oval; forepart of the head rather small compared with the posterior; forehead broad, high, and well arched: great breadth between the eyes, and the nasal bones flat; bones of the face large, and the alveolar processes expanded and projecting; ossa triquetra in the occipital and mastoid sutures.—*Donor, R. Clarke, Esq., Surgeon.*

No. 284. Skull of an Attan or Appa-man.—Craniam oval and well formed, with very few of the Negro peculiarities; the forehead is broad, high, and well arched; ridges for the insertion of muscles not marked; nasal bones small and arched; alveolar processes project to a great extent.—*Same Donor.*

DIVISION 10.—PAPAS, or MAHAI.

These three skulls are small, oval, and well formed, and have the Negro peculiarities in a marked degree. There are no marked ridges for the insertion of muscles; the nasal bones are oblong, and on the same plane in two, but in No. 286 they are arched; the alveolar processes are long and projecting; in one there are ossa Wormiana in the occipital suture.

No. 285. Skull of a Papas, Papaus, or Mahai girl.—Cranium small, oval, and not compressed laterally; forehead small, but arched, and nearly perpendicular with the bones of the face; ridges for the insertion of muscles of small extent, and not well marked; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but in the condyles of the occipital bones; nasal bones large, oblong, and on the same plane, with great breadth between the eyes; alveolar processes everted and projecting; lachrymal canal of large size.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 11.—BARCONKA, OR MOKA.

Of these two skulls, one of them, No. 289, displays scarcely any of the Negro peculiarities. No. 288 is of a peculiar form, and shows them to a great degree. Both skulls slope gradually, and become narrower from the occiput to the occipital foramen; ossa triquetra were found in the occipital and temporal sutures of both skulls; in the former they are very numerous.

No. 288. Skull of a Barconka, or Moka girl.—Cranium of a square form, and not compressed laterally; forehead large, broad, and high; vertex broad and flat; occiput prominent, and sloping to a narrow point towards the occipital foramen, giving a narrow, contracted appearance to the base of the skull; mastoid processes very small; an os triquetrum in the suture between the temporal, parietal, and sphenoid bones, which entirely cut off the latter bone from the parietal; ridges for the insertion of muscles of small extent, and not well marked; internal orbital angle of the frontal bone is large and broad, and descends for half an inch to meet the nasal bones, which are oblong, and on the same plane; zygomatic arch does not stand out from the head, but is small and flat; the bones of the face project very much, and the alveolar processes are long and projecting, but the superior maxillary bone is narrow.—*Donor, R. Clarke, Esq., Surgeon.*

No. 289. Skull of a Barconka, or Moka man.—Cranium oval and well formed; forehead large, broad, and high; the skull becomes slightly contracted from the occiput towards the occipital foramen; two ossa triquetra in the right, temporal and sphenoid sutures, and numerous ossa Wormiana in the occipital suture; nasal bones arched, and the alveolar processes do not project.—*Same Donor.*

DIVISION 12.—IBO.

These nine crania are all large, capacious, oval, and well formed, and the Negro characters are marked, but not in an exaggerated degree; the nasal bones are oblong, and on the same plane; the alveolar processes are prominent, but do not project very much; the anterior nasal aperture is of the peculiar form already mentioned. No. 291 has the superciliary ridge very prominent, which is very rare in a Negro skull. No. 293 is very large, heavy, and the bones are of great thickness; ossa triquetra were found in four instances in the occipital suture; in two, the sphenoid was entirely cut off from the parietal by a process of the temporal bone; in one, there is a suture in the centre of the frontal bone; in one, the occipital foramen was large.

No. 291. Skull of an Ibo-man.—Cranium large, and of an oval form; forehead broad, and slightly retreating; superciliary ridges very prominent; vertex broad and arched; great breadth between the eyes, and the nasal bones flat; face broad, but rather sharp; alveolar processes do not project; pterygoid processes large and strong, especially the external pterygoid plate; lachrymal canal of large size.—*Donor, R. Clarke, Esq., Surgeon.*

No. 293. Skull of an Ibo, a notorious thief.—Cranium large, and of an oval form; forehead broad, high, and slightly retreating; posterior part of head large; mastoid processes large and strong; bones of the face broad and flat; great breadth between the eyes, and the nasal bones are oblong, and on the same plane; lachrymal canal of large size; alveolar processes project; external pterygoid plate large and broad, and turned outwards; styloid processes long and strong; lower jaw broad and thick. This skull is of great weight, viz., 1 lb. 11 oz. 3 drs.—*Donor, Dr. Foulis, Assistant Staff Surgeon.*

No. 299. Skull of an Ibo girl.—Cranium oval, and well formed; forehead high, and well arched; ridge for the insertion of muscles of small extent, and not well marked: nasal bones large, and on the same plane, with great breadth between the eyes; alveolar processes project slightly.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 13.—ASHANTI.

Sixty-one skulls of Ashantis are in the collection. The great similarity between the whole of these crania is most remarkable: the cranium is of a moderate size, oval and well formed; the bones of the face are likewise of a proportionate size, and do not project; the frontal bone is frequently perpendicular with the bones of the face; they display the Negro peculiarities in having the nasal bones oblong and in the same plane, the breadth between the eyes, the form of the anterior nasal aperture, which is generally that of No. 343, and the projection of the alveolar processes. These characters are marked, but are not in an exaggerated form. The alveolar processes are frequently broad in front, and do not project; but the position of the socket of the teeth causes the teeth to project. No. 322 has the nasal bones highly arched, and the alveolar processes do not project: this skull is of a rounder form than the others. No. 329 shows the Negro characters in a high degree, and is one of the worst formed skulls in the collection: the forehead is small, low, and receding; the maxillary bones project very much, as also the alveolar processes; the lachrymal canal is formed entirely on the nasal process of the superior maxillary bone. Ossa triquetra were found in the occipital suture in thirty-seven instances; and in two additional instances large Wormian bones cut off the superior angle of the occipital bone; these bones were also found in the temporal and sphenoid suture in four; the sphenoid was entirely cut off from the parietal, by a process of the temporal bone, in six; the lachrymal groove was formed entirely on the nasal process of the superior maxillary in nine; the foramen magnum was small in four, and large in two; a suture in the centre of the frontal bone in one.

No. 322.—Cranium of an oval form, and shows more of the Negro peculiarities; forehead rather low and receding; nasal bones very high and well arched; alveolar processes are straight, and do not project.—*Donor, Michael Sweeny, Esq., Staff Surgeon.*

No. 329.—Forehead very narrow and receding, and small compared to the posterior part; superior maxillary bones project; nasal bones slightly arched; alveolar processes projecting; lachrymal canal very large, and formed entirely on the nasal process of the superior maxillary bone; lachrymal bones very mall; orbits contracted.—*Same Donor.*

No. 343.—Cranium of an oval form; occiput projects; the forehead is high, well arched, and nearly perpendicular with the bones of the face; the transverse diameter is greater immediately above the mastoid process than at the parietal protuberances; ridges for the insertion of muscles not marked; great breadth between the eyes; the nasal bones are large, oblong, and on the same plane; the alveolar processes project very slightly.—*Same Donor.*

No. 348.—Cranium large, oval, and well formed; nasal bones oblong, and on the same plane; alveolar processes long and projecting; styloid processes long, and of great strength; lachrymal canal of large size.—*Same Donor.*

DIVISION 14.—COLABAR.

These four skulls are oval, capacious, and well formed; they show the Negro characters, but not strongly marked. No. 361 has the nasal bones arched; in No. 362 the skull is of a square form; the superciliary ridge marked; and the alveolar processes are long, but they do not project to a great extent. Wormian bones were found in each skull; in one skull there are two of large size, cutting off the superior angle of the occipital bone; triquetral bones also exist in the temporal and sphenoid suture in one; the sphenoid is entirely cut off from the parietal by a process of the temporal bone in one.

No. 361. Skull of a Colabar-man, aged 36, who died of dysentery.—Cranium oval and well formed; forehead high and well arched, but narrow; left wing of the sphenoid entirely cut off from the parietal by a process of the temporal bone; breadth between the eyes not great, and the nasal bones are arched; alveolar processes very long and projecting; styloid process very long and strong.

No. 362. Skull of a Colabar or Karaba-man, who died of dysentery.—Cranium large, and of a square form; forehead high, broad, and arched; posterior part of skull large; two very large ossa triquetra cutting of the superior angle of the occipital bone; a depression at the junction of the frontal and nasal bones; considerable breadth between the eyes; nasal bones small, and on the same plane; alveolar processes very long and projecting; lachrymal canal of a large size.

DIVISION 15.—KAUNGA.

These three skulls are oval and well formed; they have the Negro characters in the nasal bones being on the same plane, and in the form of the anterior nasal aperture; the alveolar processes project, though not to a great extent. No. 367 has the frontal bone nearly perpendicular with the bones of the face.

No. 365 has the superciliary ridge prominent; Wormian bones were found in three instances in the occipital suture; and in one in the temporal and sphenoid suture.

No. 365. Skull of a Kaunga-man.—Cranium oval; forehead low, narrow, and retreating; superciliary ridge prominent; considerable breadth between the eyes; nasal bones oblong, and on the same plane; alveolar processes long and projecting.

No. 367. Skull of a Kaunga-woman. Cranium long and rather narrow; forehead low; an os triquetrum in the temporal and sphenoid suture; considerable breadth between the eyes; the superior half of the nasal bones are on the same plane, and the inferior half somewhat arched; alveolar processes long and projecting.

DIVISION 16.—CONGO.

These three skulls are of small size, of a round or oval form, and have few of the Negro characters; neither the superior maxillary bone nor the alveolar processes project; the nasal bones are on the same plane, and in one skull they are of an oblong form; this, with the form of the anterior nasal aperture, are almost the only points of resemblance to the Negro. The skulls are of light weight; bones thin and transparent, and of a fine texture; the bones of the face are of small size; in No. 369 the nasal bones are small and slightly arched; there is a bulging in the temporal region in all of them, and likewise in the occipital region for the downward development of the cerebellum; the mastoid processes are small in the two from young subjects; Wormian bones are found in two instances in the occipital suture.

No. 368. Skull of a Congo boy, aged thirteen years.—Cranium small; forehead and vertex high and well arched; a bulging over the temporal region; occiput broad, high, and almost perpendicular from the vertex to the occipital foramen; the two sides of the occiput are not symmetrical, the left side being more flattened than the right; the bones of the face are of small size; considerable breadth between the eyes; nasal bones oblong and on the same plane; the alveolar processes slightly everted; the permanent cuspidate tooth of the upper jaw has not descended, and is seen lying in a cavity immediately below and to the outer side of the nasal aperture.

No. 369. Skull of a Congo-woman.—Cranium small, oval, and well formed; bones of the face small; breadth between the eyes not great; nasal bones small, and slightly arched; alveolar processes everted.

DIVISION 17.—MISCELLANEOUS AFRICANS.

These twenty skulls of Negroes from the west coast of Africa display in each great variety as to form: some approach very near to the European, such as Nos. 372, 373, 374, 382, 384, &c., which have the nasal bones more or less arched, and the alveolar processes do not project to a great degree. No. 377 displays the Negro peculiarities in an exaggerated degree. This skull, with No. 329, an Ashanti already mentioned, are very much alike, and are the only skulls which are compressed laterally to a great extent. No. 376 is of a peculiar rounded form, with a bulging in the temporal region; the superciliary ridges are prominent; the nasal bones very highly arched; and the alveolar processes perpendicular. Wormian bones were found in ten instances in the occipital suture; and in four additional instances they were of large size, cutting off the superior angle of the occipital bone; the sphenoid was entirely cut off from the parietal by a process of the temporal bone in two; in one there was a suture in the frontal bone; the occipital foramen was small in six, and large in one.

No. 371. Skull belonging to a complete skeleton of an African Negro.—Cranium large and oval; forehead broad and well arched, but small compared to the posterior part of the skull; ridge for the insertion of the temporal muscle well marked, and situated high on the head; superciliary ridge rather prominent, and a depression at the junction of the frontal and nasal bones; breadth between the eyes not great; nasal bones oblong, and on the same plane; alveolar processes very long and projecting; lachrymal canal of large size.

No. 372.—Cranium large, oval, and well formed, and displays few of the Negro peculiarities; ridge for the insertion of the temporal muscles ascends rather high on the head, and those on the occiput are well marked; nasal bones high and arched, and the breadth between the eyes is not great; the alveolar processes project slightly.

No. 373.—Cranium oval; forehead arched, but small compared to the posterior part of the skull; a suture in the centre of the frontal bone; two large ossa triquetra at the superior angle of the occipital bone; considerable breadth between the eyes; nasal bones slightly arched; malar bones large; alveolar processes project very much; external plate of the pterygoid process broad; styloid process long.

No. 374.—Cranium oval and well formed, and display few of the Negro peculiarities; the forehead is high, well arched, and nearly perpendicular with the bones of the face; the nasal bones are arched, and the alveolar processes do not project; styloid process strong.

No. 377. This is an exaggerated specimen of the Negro skull, and displays all their peculiarities in a high degree; it is the worst-formed skull in this section.—The cranium is compressed laterally; the forehead is low, very narrow, and retreating, and small compared to the posterior part of the skull; the ridges for the insertion of the temporal and other muscles are of small extent, and not well marked; the left wing of the sphenoid is entirely cut off from the parietal by a process of the temporal bone; the bones of the face project; considerable breadth between the eyes; nasal bones oblong, and nearly on the same plane; alveolar processes long and projecting; lachrymal canal large.

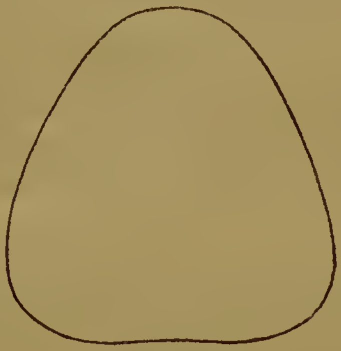
No. 382.—Cranium oval, and shows few of the Negro peculiarities; forehead broad, but low, and nearly perpendicular with the bones of the face; breadth between the eyes is not great, and the nasal bones are somewhat arched; the alveolar processes project; the lachrymal is large.

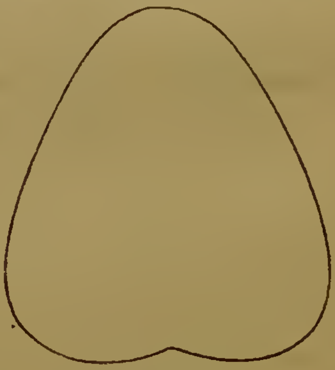
No. 384.—Cranium oval and well formed; forehead rather small compared to the posterior part of the skull; sphenoid entirely cut off from the parietal by a process of the temporal bone; superciliary ridge prominent, and a depression at the junction of the frontal and nasal bones, which are partially destroyed; the alveolar processes are long and projecting; the lachrymal canal is of large size.

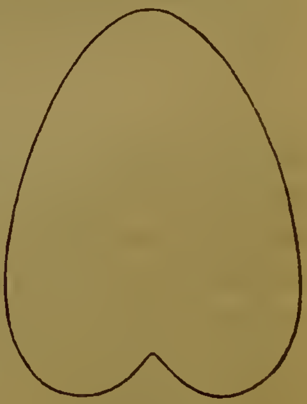
No. 390. Skull of an African idiot, a native of the Pappau country.—He was quiet and inoffensive, and was always employed as a pioneer in cleaning the barrack-yard, at which work he did as much as three men; always talking to himself, and when interrupted would fly into a rage, and state that his father was a general in Guinea, with many other assertions of his native importance. He died of cholera.—Cranium very large, of great weight, and the bones are very thick; the skull is oval, and not badly formed; the forehead broad, arched, but low; the bones of the face are very large, and of great breadth; the breadth between the eyes is very great, being nearly an inch and a half; the nasal bones are on the same plane; the alveolar processes are long and thick, describe a large semicircle, but do not project; the lachrymal canal is large; the mastoid and pterygoid processes are strong; the lower jaw is very thick and strong.—*Donor, Dr. Rhyes, Surgeon, 3rd West India Regiment.*

DIVISION 18.—KAFFIR.

There are fifteen skulls of Kaffirs in the collection. The greater number of the Kaffir skulls have characters peculiar to themselves, which seem to be intermediate between the Negro and the European; they have not the least resemblance to the Hottentot or Bushman. The skulls are large, oval, and capacious, and well formed. The forehead is broad, high, and well arched, as also the vertex. In some skulls, such as Nos. 393, 394, and 396, there is a ridge along the sagittal suture, and a shelving on each side. The occiput is well rounded, and frequently prominent. The ridge for the attachment of the temporal muscle is extensive and strongly marked in some skulls, and in others not. The superciliary ridge is always marked, although not prominent, except in No. 394. The nasal bones are of moderate size, and arched, although not in general so highly as in Europeans; this, with the nasal process of the superior maxillary bone being somewhat large, makes the distance between the eyes to be greater than in Europeans. The anterior nasal aperture is large and wide at its inferior part, having in some skulls a resemblance to that of the Negro, as in Nos. 395 and 407. The margins of the lower angles of the aperture are not sharp, as in the European skull, but are smooth and rounded off in many of them, especially in Nos. 395 and 407. In Nos. 398 and 400 it is almost entirely of the European form, but there is some doubt as to whether these two are really Kaffir skulls. The alveolar processes of the upper jaw are large, broad in front, and describe a large segment of a circle, but they do not generally project; in Nos. 393 and 401 they project to a great degree. In Nos. 393, 394, 395, 396, 403, 406, and 407, the malar bones stand outwards, and


No. 395.


No. 407.


No. 400.

the zygomatic arch is large, and has a sweep in the same direction. But in other skulls this peculiarity is not observed, nor is it strongly marked in some of those mentioned. The face is in some broad, but not flat. The space for the downward development of the brain is of moderate extent, and the base of the skull presents nothing remarkable. In some the foramen ovale is larger than usual, but this is also sometimes seen in European skulls. The bones of the skull are thin and transparent, and of fine texture, and at the same time dense and hard. No. 395 is white and polished, resembling ivory. The lower jaw is thick and strong, but not more than in proportion to the size of the skull. The teeth are sound and well set. In the greater number of the skulls the incisor teeth are wanting. In four of the Tambuki Kaffirs they are worn down on the inner surface, and are not so sharpened at the point as in European skulls. In No. 407 the incisor teeth are short, thick, round, and truncated, their surface being much worn down, as likewise the molar teeth. In several of the skulls the sockets for the incisors are deep, and strongly marked on the surface of the alveolar processes.

The characters of the Kaffir skull are most strongly displayed in the skulls of the Tambuki Kaffirs, and they resemble each other much; from 393 up to 397 they are very similar, as also 399, 401, 403, 405, 406, and 407, and show the characters more or less above mentioned.

Some of the skulls, as Nos. 398, 400, 402, and 404, display the European characters in every particular; some even resemble the best-formed Greek skulls.

Out of fifteen Kaffir skulls Wormian bones were found in the occipital suture in eight instances, and in the temporal and sphenoid suture in two instances. The lachrymal canal is generally of large size, and in one instance it was formed entirely on the nasal process of the superior maxillary bone. The foramen magnum was thought to be rather large in two, and rather small in two instances.

TAMBUKI TRIBE.

No. 393. Skull of a Tambuki Kaffir. — Cranium large, oval, and capacious; the forehead is well arched; the head is rather narrow and somewhat compressed towards the summit, having a ridge along the vertex; the longitudinal is rather greater in proportion to the parietal diameter, and the occiput is prominent; the ridge for the insertion of the temporal muscle, and those on the occiput, are not of great extent, nor strongly marked; the superciliary ridge is marked; the nasal bones are arched, but not highly; the malar bones are of moderate size, and stand somewhat outwards, the zygomatic arch is large, and has a sweep in the same direction; the superior maxillary bones do not project, but the alveolar processes are somewhat prominent and everted; the lachrymal canal is rather large; the lower jaw is of a size in proportion to the skull; the teeth are sound and regular.—*Donor, Dr. Gibb, A. S. Staff.*

No. 394. Skull of a Tambuki Kaffir.—Cranium large and capacious; forehead low, retreating very much, and small compared to the posterior part of the skull; longitudinal and parietal diameters are proportionally large; the skull is narrow towards the vertex, having a ridge along the sagittal suture; the ridge for the insertion of the temporal muscle is high on the head, and well marked, as likewise those on the occiput, which is prominent; the superciliary ridge is very prominent, and there is a depression at the junction of the frontal and nasal bones; the coronal and sagittal sutures are obliterated; the malar bone and zygoma are large and strong, and stand outwards; the nasal bones are small, triangular, and somewhat arched; the alveolar processes project slightly, and the sockets for the teeth are deep and strongly marked on the external side of the alveolar processes; the teeth are all sound, white, and regular; the lower jaw is strong and deep; the lachrymal canal is of moderate size, and formed entirely on the nasal process of the superior maxillary bone.—*Same Donor.*

No. 395. Skull of a Tambuki Kaffir.—This skull is large, oval, capacious, and beautifully formed, and resembles an European skull in almost every particular; the forehead is very high, and remarkably well arched; the insertion of the temporal muscle is extensive, and the ridges on the occiput are not very strongly marked; the superciliary ridge is marked; the nasal bones are oblong, and somewhat arched, and the breadth between the eyes is larger than in Europeon skulls; the malar bone stands outwards, and the zygomatic arch is large, and has a sweep in the same direction; the alveolar processes are of moderate size, and do not project; the teeth are strong, regular, and remarkably sound; the lower jaw is strong and thick; the lachrymal canal is of large size; the bones of the skull have a polished appearance, resembling ivory, and are hard and transparent.—*Same Donor.*

No. 396. Skull of a Tambuki Kaffir.—Cranium large, oval, and capacious; forehead well arched; skull becoming narrow towards the vertex, where there is a ridge along the sagittal suture; the occiput is prominent; the ridge for the insertion of the temporal muscle is extensive; the superciliary ridge is marked; the face is broad, but not flat; the malar bone stands outwards, and the zygomatic arch is large, and has a sweep in the same direction; the nasal bones are small, and slightly arched; the alveolar processes of the upper jaw are long and projecting; the anterior nasal aperture is wide, and of the form given above; the lachrymal canal is of large size; the lower jaw is thick, strong, and deep; the teeth are regular and sound; the skull is heavy, and the bones are hard.—*Same Donor.*

No. 397. Skull of a Tambuki Kaffir.—This skull resembles the European in every particular, with the exception that the nasal bones, although arched, are not so prominent; the upper jaw does not project, and the alveolar processes of both jaws are straight; the cranium is oval and capacious; the forehead is high, and well arched, and the superciliary ridge is marked; the ridge for the insertion of the temporal muscle is marked, but not strongly; the teeth are regular and sound; lachrymal canal is large; the coronal and sagittal sutures are obliterated. *Same Donor.*

AMUKOSAH TRIBE.

No. 398[a]. Skull of Magambo, son of the celebrated chief, Islambre, killed in the battle at Graham's Town.—This skull resembles in every particular the best-formed European skulls. The skull is remarkably well formed, with the exception of a projection of the occiput; the forehead is high, broad, and well arched, and likewise the vertex; the bones of the face are small; the nasal bones highly arched, and the alveolar processes perpendicular.—*Donor, Dr. Davy, A. I. H.*

TRIBE NOT KNOWN.

No. 399. Skull of a Kaffir chief shot on the banks of the Great Fish River.—Cranium large and well formed; forehead broad and well arched; the occiput is rather prominent; the ridge for the insertion of the temporal muscle is extensive, but not strongly marked; the superciliary ridge is marked; the nasal bones are small, and somewhat arched; the alveolar processes of the upper jaw are long, and project considerably.—*Donor, Mr. Averton, Assistant Surgeon, 3rd Regiment, Foot.*

No. 400. Skull of a Kaffir chief.—This skull resembles the best-formed Greek skull. The forehead is broad, high, and beautifully arched; the nasal bones are prominent, and highly arched; the alveolar processes are perpendicular. — *Donor, Dr. Davy, A. I. H.*

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[a] There is some doubt as to Nos. 398 and 400 being really Kaffir skulls.

No. 401. Skull of a Kaffir, a notorious thief.—Cranium large; forehead retreating, and very small compared to the posterior part of the skull; the parietal protuberances are very prominent, and the parietal diameter is large; the vertex is broad and flat; ridge for the insertion of the temporal muscle is strongly marked, but not extensive; the superciliary ridge is prominent, and there is a depression at the junction of the frontal and nasal bones, which are small and somewhat arched; the breadth between the eyes is rather great; the alveolar processes are long and projecting; the lower jaw is large, strong, and deep in front.—*Donor, Dr. Courtney, Assistant Surgeon, 75th Regiment.*

No. 403. Skull of a Kaffir.—This is a large, broad skull; the forehead is broad, but low and retreating; the ridge for the insertion of the temporal muscle extensive, and high on the head; the face is broad; the malar bones stand outwards, and the zygomatic arch has a sweep in the same direction; the breadth between the eyes is considerable; the nasal bones are small, and somewhat arched; the alveolar processes are short and perpendicular; the frontal and sagittal sutures are obliterated; the skull is heavy, and the bones thick and hard. —*Donor, Dr. Malcolm, Assistant Surgeon, 72nd Regiment.*

No. 404. Skull of a Kaffir.—This skull resembles the best-formed European in every particular. The forehead is broad, high, and well arched; the superciliary ridge is marked; the nasal bones are small and arched; the alveolar processes are somewhat prominent, but not more than in many European skulls.

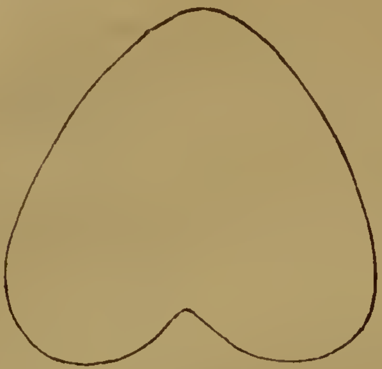
No. 405. Skull of a Kaffir.—Cranium large, and its longitudinal diameter very great; forehead broad, arched, but low; vertex broad; ridge for the insertion of the temporal muscle extensive; superciliary ridge marked; nasal bones slightly arched; alveolar processes project considerably: the lachrymal canal is of large size; the mastoid processes are very strong.

No. 406. Skull of a Kaffir.—Cranium oval, capacious, and well formed; forehead broad, high, and well arched; vertex broad; occiput well rounded; ridge for the attachment of the temporal muscle rather extensive and well marked; superciliary ridge slightly marked; face broad and flat; great breadth between the eyes, caused by the size of the nasal processes of the superior maxillary bones; the nasal bones are nearly on the same plane; the alveolar processes are broad in front, straight, and do not project; the anterior nasal aperture is large; the teeth are regular; the incisor teeth are broken, but what remains of them shows that they have been thick and sound; the foramen magnum and ovale are of large size; some of the sutures are obliterated.—*Donor, Dr. Hall, D. I. G.*

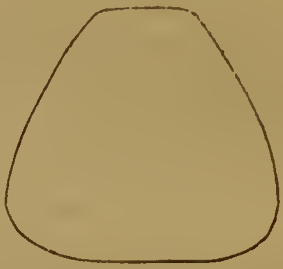
No. 407. Skull of a Kaffir.—Cranium oval and well formed; forehead rather narrow, but straight and well arched; occiput prominent; ridge for the attachment of the temporal muscle not extensive, nor strongly marked; superciliary ridge not marked; face rather broad, but not flat; breadth between the eyes of moderate extent, and the nasal bones are arched, although not highly; the malar bone stands outwards, and the zygomatic arch is large, and has a sweep in the same direction; the anterior nasal aperture is large, and of the form given above; the alveolar processes are short, broad in front, and stand slightly forward; the sockets for the teeth are strongly marked on the external face of the alveolar processes; the teeth are sound and regular, and their surfaces very much worn down; the incisors are short, thick, round, and truncated; the foramen ovale is rather large; there is a small aperture in the frontal bone, and another in the occipital, which seem to have been caused by a gun-shot; the orbital plate of the frontal bone, and the left parietal bone, are fractured.

DIVISION 19.—HOTTENTOT.

Of these there are seven in the collection. Hottentot skulls are of smaller size than the Kaffirs, and larger than the Bushman skulls. The Hottentot skulls resemble the Bushman, the Bushman displaying the same characters in a more marked degree. The Hottentot and Bushman have no point of resemblance to the Kaffir skulls. The skulls of the Hottentots are of small size, and of oval form; the forehead is high, well arched, and nearly perpendicular with the bones of the face; the vertex is of moderate breadth, well rounded, as likewise the occiput; the ridge for the attachment of the temporal muscle not extensive, nor high on the head; the superciliary ridge is marked, but not prominent; the face is broad, and sometimes flat; the malar bones are prominent, and project forwards and outwards; the zygomatic arch is not generally large; the nasal bones are of moderate size, but flat and on the same plane; this, with the nasal process of the superior maxillary bone being rather large, causes a great breadth between the eyes; the anterior nasal aperture is of this form, large and wide in No. 409, and small and wide in No. 414, and resembles very much the form of the Negro; the alveolar processes



No. 409.



No. 414.

describe a large segment of a circle, they are short and broad in front, and do not in general project; in Nos. 411 and 413 the alveolar processes are very long, broad in front, and projecting; No. 408 has the nasal bones arched, and the breadth between the eyes is not great; the alveolar processes project; the ridge for the attachment of the temporal muscle is extensive, and strongly marked; the lower jaw is very thick and strong. Nos. 409 up to 414 show the Hottentot characters, more or less, in the broad, flat face, the great breadth between the eyes, the nasal bones being on the same plane, the large, wide, anterior nasal aperture, and the prominent cheek-bones. No. 412 has a peculiar appearance, from the low forehead, prominent superciliary ridge, broad, flat face, and fulness under the orbits. The base of the skulls presents nothing remarkable. The space for the downward development of the brain is of moderate extent, and the foramina for the transmission of nerves are of the usual size.

Out of seven skulls, Wormian bones were found in four instances in the occipital suture.

The lachrymal canal is of moderate size, and is formed entirely on the nasal process of the superior maxillary bone in one instance. The sphenoid is entirely cut off from the parietal by a process of the temporal bone, in two instances; the occipital foramen was thought to be small in one instance.

No. 408. Skull of a Hottentot who was executed for insurrection.—The skull is of small size; the forehead is arched, but small compared to the posterior part of the head; the parietal protuberances are very prominent, and the breadth between them is great in proportion to the skull; the occiput is likewise prominent; the ridge for the insertion of the temporal muscle is very extensive and high on the head; the superciliary ridge is marked; the face is broad, but not flat; the malar bone is prominent and stands outwards; the nasal bones are arched, and the alveolar processes project; the lower jaw is very thick, strong, and deep.—*Donor, Dr. Ford, A. S., 72nd Regiment.*

No. 409. Skull of a Hottentot of the Cape Mounted Rifles.—Cranium small, oval, and very well formed; forehead high and well arched; very great breadth between the eyes, being about an inch and a half; the nasal bones are on the same plane; the anterior nasal aperture is large, and of the form given above, which resembles that of the Negro; the face is broad; the malar bone stands outwards, and the zygomatic arch has a sweep in the same direction; the alveolar arch is large, and broad in front, and projects somewhat; the sutures are obliterated.—*Donor, Mr. Overton, A. S., 3rd Regiment.*

No. 410. Skull of a Hottentot, a murderer.—Cranium small, oval, and not symmetrical in the occipital region; anterior part of the skull is small compared to the posterior; the forehead is arched, and perpendicular with the bones of the face, which is broad and flat; great breadth between the eyes; nasal bones small, and on the same plane; nasal process of the superior maxillary bones is large; malar bones prominent, and project forwards and outwards; the anterior nasal aperture is wide, and of the form given above, which approaches to that of the Negro; the alveolar arch is broad in front, but does not project; the position for the sockets of the teeth must have caused them to stand forward; lachrymal canal large; the sphenoid is entirely cut off from the parietal by a process of the temporal bone; orbits contracted, and their greatest diameter is transverse.

No. 411. Skull of a Hottentot.—Cranium small, oval, but rather narrow; forehead well arched; superciliary ridge not marked; face neither broad nor flat; considerable breadth between the eyes; nasal bones nearly on the same plane; malar bones do not stand forward nor outward; alveolar processes very long and projecting.

No. 412. Skull of a Hottentot.—Cranium small and oval; forehead low and receding; superciliary ridge strongly marked with a depression at the junction of the frontal and nasal bones; sphenoid entirely cut off from the parietal by a process of the temporal bone; breadth between the eyes is great, which is caused by the nasal process of the superior maxillary bone; the nasal bones are small, and nearly on the same plane; face broad and full, and the cheek bones are flat, and stand outwards; the superior maxillary bone and the alveolar processes are perpendicular and straight; the alveolar processes are broad in front; the orbits seem contracted on account of the prominent superciliary ridge, and the fulness of the inferior border of the orbit; the lacrymal canal is of large size; the external plate of the pterygoid process is broad.—*Donor*, *Mr. Morgan*, *A. S.*, 55*th Regiment.*

No. 413. Skull of a Hottentot.—Cranium small, oval, and well formed; forehead high and well arched; superciliary ridge not marked; very great breadth between the eyes, caused by the size of the nasal processes of the superior maxillary bones; nasal bones small, and on the same plane; malar bones small, and do not stand forward; the alveolar processes are long, broad in front, but do not project; the frontal bone is perpendicular with the bones of the face; the lachrymal canal is of large size, and formed entirely on the nasal process of the superior maxillary bone.—*Donor*, *Dr. Malcolm*, *A. S.* 72*nd Regiment.*

No. 414. Skull of a Hottentot female, being part of a complete skeleton.—Cranium of small size; forehead high and arched, but narrow and small compared to the posterior part of the skull; the parietal protuberances are prominent, and the vertex is broad; the superciliary ridge is slightly marked; the bones of the face are small and flat; the breadth between the eyes is great, and the nasal bones are on the same plane; the orbits are small, contracted, and their greatest diameter is transverse; the anterior nasal aperture has the form given in the drawing, which approaches to that of the Negro; the cheek bones stand somewhat forwards and outwards; the alveolar processes are short, but the position of the sockets causes the teeth to project; the lower jaw is small and narrow in front. —*Donor*, *Dr. Dyce*, *A. S.*, *Staff*.

DRIED HEADS OF HOTTENTOTS.

Of these there are three in the collection. The head is broad and square; face broad and flat, and the lower part narrow; the forehead is straight, high, and well arched; the ears are placed far back on the head, the distance from them to the prominent cheek bones being very great; the hair is very short and woolly, and grows in small tufts, curled and twisted into small round lumps, leaving the scalp visible between; the space between the two cheek bones is flat; the cheek bones are high and prominent, and stand forwards and outwards; these, with the narrow, pointed chin, form nearly a triangle; the breadth between the eyes is very great, and there is scarcely any perceptible bridge of the nose; nostrils small and depressed, and their greatest diameter is in the transverse direction; chin long and narrow; eyes oblique, the external angle being drawn downwards, and the internal rather upwards; lines drawn through the corners intersect, in No. 417, towards the forehead, and not as low down as the middle of the nose as have been stated; lines drawn through the corners of the eyes in Nos. 415 and 416 do coincide; the lips are thin, and the hair on the eyebrows and chin is scanty; the incisor teeth, in No. 415, are small, round, thick, and truncated, and not sharp at the point. No. 417 shows the Hottentot characters in the most marked degree. Facial angle: No. 415, 71°; No. 416, 75°; No. 417, 74°.

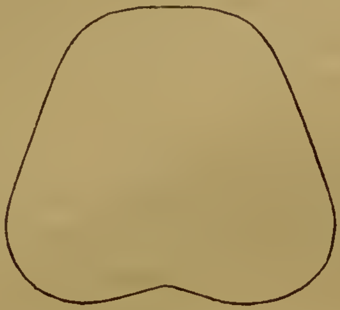
No. 415. Dried head of a Hottentot.—Head oval; the breadth between the eyes is considerable; the nose is slightly raised; the cheek bones prominent, and the lower part of the face narrow; the incisor teeth are small, round, thick, and truncated. Facial angle, 71°.

No. 416. Dried head of a Hottentot.—Head broad and square; great breadth between the eyes; nose flat, and on a level with the cheek bones; chin long, narrow, and projecting forwards. Facial angle, 75°.

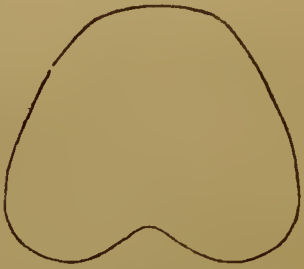
No. 417. Dried head of a Hottentot.—Head broad and square, and shows the Hottentot peculiarities in a marked degree; great breadth between the eyes; the face broad and flat; nose flat; the cheek bones prominent, and on the same plane; the chin pointed, narrow, and projecting, and the eyes oblique. These are the most prominent characters. Facial angle, 74°.

DIVISION 20.—BUSHMAN.

There are nine skulls of Bushmans, and they are smaller than any other class of skulls in the collection. The skulls are small, and of a remarkably square form; the forehead is high, broad, and well arched, and perpendicular with the bones of the face; the forehead is, nevertheless, small compared to the posterior part of the skull, the parietal diameter being very great, and the vertex broad and flat; the occiput is well rounded, and frequently prominent; the ridge for the attachment of the temporal muscle is not extensive nor strongly marked; the superciliary ridge is frequently not marked, and in this respect resembles the Negro skulls, the frontal and nasal bones forming a smooth, continuous surface; the face is broad and flat; the frontal, nasal, malar bones, and alveolar processes are nearly on the same plane; the infra-orbital fossa is frequently deep, and thus takes away from the flat appearance of the face; the malar bones are prominent and stand forwards and outwards, and the zygomatic arch, although of moderate size, has a slight sweep in the same direction; the breadth between the eyes is very great, and the nasal bones are very flat, frequently oblong, and always on the same plane; the anterior nasal aperture is large and wide, and of a square, rounded form, resembling that of a Negro. It is of this form in Nos. 418 and 423. The alveolar processes are straight and broad in front, and do not project, but the position of the sockets causes the teeth to stand forward; the teeth are generally sound and regular; the incisor teeth are thick and round, and their surfaces worn down in No. 418; this is not the case, however, in any of the other skulls in which the teeth are present; the lower jaw is no way different from others; the transverse diameter of the base of the skull is sometimes great compared to the antero-posterior, when a line is drawn across from between the mastoid process and root of the zygoma, but in other skulls this is not observed; the space for the downward development of the brain is of moderate extent; the foramen for the transmission of nerves is generally of the usual size; in some, however, the foramen ovale is large; in others, of the usual size; out of nine skulls, Wormian bones are found in five instances in the occipital suture, and in one in the temporal and sphenoid sutures; the lachrymal canal is sometimes of large size.



No. 418.



No. 423.

From the foregoing description of the Hottentot and Bushman skulls it will be observed that there is a great resemblance between them, and that the Bushman presents the same characters in a more exaggerated form. They are both, however, entirely different from any other class of skulls in the collection, looking at them collectively, although many of the characters, when taken separately, resemble the skulls of other races, such as the Ashanti Negro, and likewise the Malay; they do not in any particular resemble the Chinese. The similarity between

vide Knox in the Races of men p. 226 232 the Hottentot, the Bushman, and the Ashanti skulls, consists in both being of small size; the forehead smooth, high, well arched, and nearly perpendicular with the bones of the face, the great breadth between the eyes, the nasal bones oblong and on the same plane, and the size and form of the nasal aperture. The alveolar processes are broad in front, but they project more in the Ashanti than in the Hottentot or Bushman, although in some of the Hottentots the alveolar processes project as much as in the generality of the Ashanti. In the Hottentot and Bushman the malar bones stand more prominently forwards and outwards, causing the face to have a broader and flatter appearance. The form of the cranial cavity is oval in the Hottentot and Ashanti; the Bushman's skull is of a square form. The points of resemblance between the Hottentot, the Bushman, and the Malay, are—the broad, flat face; the outward projection of the malar bones; the frontal, nasal, malar bones, and alveolar processes being all nearly on the same plane. In the Bushman and Malay the skull is of a square or round form, and the transverse diameter of the base of the skull in both is great compared to the antero-posterior. However, on comparison, the difference is very striking; the Malay skull is large and capacious, with the nasal bones always more or less arched; the breadth between the eyes is great in both, and the anterior nasal aperture is also large and wide. The Hottentot and Bushman skulls are the smallest in the collection, and the nasal bones are on the same plane, and flatter, with greater breadth between the eyes than in any other skulls. The anterior nasal aperture also approaches nearer to the Negro form.

Although, as has been stated, there are many points of resemblance between the Hottentot, the Bushman, and the Malay, yet, on comparing the three classes of skulls, the Hottentot and the Bushman bear the greatest resemblance to the Negro, especially to the Ashanti, the Hottentot approaching nearer to them than the Bushman.

No. 418. Skull of Arie, a Bushman chief.—Cranium small, oval, and well formed; forehead high, well arched, and perpendicular with the bones of the face; ridge for the insertion of the temporal muscle extensive and high on the head; superciliary ridge marked; face broad and flat; space between the eyes considerable, nasal bones small, and on the same plane; anterior nasal aperture of the same form as in the Negro; the alveolar processes project somewhat; the incisor teeth are small, round, and truncated; the lachrymal canal is large; the orbits are contracted towards their internal angle.—*Donor, Mr. Ford, A. S., 72nd Regiment.*

No. 419. Skull of a Bushman killed in a Commando in 1825.—Cranium broad and square; forehead perpendicular with the bones of the face; vertex broad and flat, occiput prominent; superciliary ridge not marked; face broad and flat; space between the eyes great, and the internal angle of the frontal bone descends for a considerable distance to meet the nasal bone; nasal processes of the superior maxillary bones are large; the nasal bones are small, triangular, and on the same plane with one another, and likewise with the cheek bones; the malar bones stand forwards and outwards; the anterior nasal aperture is of a square form; the alveolar processes are somewhat everted; the lachrymal canal is of large size.

No. 420. Skull of a Bushman, a notorious murderer.—Cranium small, and of a square form; forehead arched, and perpendicular with the bones of the face, but small compared to the posterior part of the skull; the vertex is broad and flat; the parietal protuberances and occiput are prominent; superciliary ridge not marked; face broad, flat, and square; considerable breadth between the eyes; nasal bones oblong, and on the same plane; malar bones project forwards and outwards; anterior nasal aperture of the same form as the Negro; alveolar processes straight, and do not project; incisor teeth sharp, and not round, and truncated; lachrymal canal of large size.—*Donor, Dr. Andrew Smith, A. S., Staff.*

No. 421. Skull of a Bushman.—Cranium small, and of a square form; forehead high, arched, and perpendicular with the bones of the face, but small compared to the posterior part of the skull; parietal protuberance prominent, and the head broad across the vertex; superciliary ridge not marked; face broad and flat, and the malar bones project forwards and outwards; breadth between the eyes great; nasal bones on the same plane, and on a level with the cheek bones; anterior nasal aperture of the same form as in the Negro skull; alveolar processes are long, and project somewhat.—*Donor, Dr. Gill, A. S., Staff.*

No. 422. Skull of a Bushman.—Cranium small, and of a square form, except posteriorly where the occiput is projecting; forehead high, arched, and perpendicular with the bones of the face; superciliary ridge not marked; bones of the face flat; malar bones do not project forwards; considerable breadth between the eyes; nasal bones oblong, and on the same plane; anterior nasal aperture of a square form; alveolar processes thick and full, but do not project; the permanent teeth have not descended; the lachrymal canal is of large size.—*Donor, Dr. Malcolm, A. S., 72nd Regiment.*

DIVISION 21.—MOZAMBIQUE.

There is only one skull from this part of the African coast in the collection. In some points it resembles the Negro, in others the European skulls. The narrow, low forehead, and the long, projecting alveolar processes of the upper jaw, are the only Negro peculiarities. The oval skull and face, with the prominent nasal bones, are those of the Europeans; likewise, the form of the anterior nasal aperture. The dried head, as will be observed from the description of it, presents the Negro characters in the short woolly hair and projecting alveolar processes of the upper jaw, but the peculiarities of the Negro are not strongly marked, and are somewhat softened and modified.

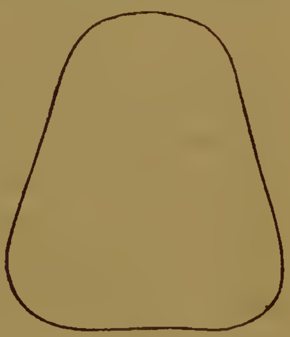
No. 428. Skull of a native of Mozambique, who was executed for insurrection.—Cranium oval; the forehead is small, narrow, and very low and retreating; the ridge for the attachment of the temporal muscle is extensive, and the superciliary ridge is slightly marked; nasal bones very highly arched; malar bones neither project forwards nor outwards; the alveolar processes are long and projecting; the anterior nasal spine is large; the sockets for the teeth are of very great depth, and the fangs of the teeth are of corresponding size; the skull altogether resembles the European, with the exception of the projecting alveolar processes.—*Donor, Mr. Ford, A. S., 72nd Regiment.*

No. 429. Dried head of a native of Mozambique.—Head oval; forehead high, straight, and well arched; hair short, thin, and woolly; beard also thin, but the hair is longer, and grows upon the front of the neck; face oval; nose somewhat prominent, but not so high as in Europeans; the alveolar processes of the upper jaw project; the teeth are of a dirty brown colour, very irregular, and their surfaces smooth and worn down; the lips are thin; the cheek bones are not prominent; facial angle, 76°.

DIVISION 22.—MADECASSE.

There are three skulls from Madagascar in the collection; they all display individual peculiarities in a greater or less degree.

No. 430 approximates more nearly to the European; the only Negro characters are, the nasal bones being on the same plane, the alveolar processes standing very slightly forward, and the form of the anterior nasal aperture thus. See illustration.


No. 430.

No. 431 resembles the Negro skull in every particular.

No. 432 is a large, unsymmetrical skull, and resembles the Malay much more than the Negro, viz., in the broad, flat face; the outward projection of the malar bones; the straight and broad alveolar processes; the slightly arched nasal bones, and great breadth between the eyes. The frontal, nasal, and malar bones, and alveolar processes of the superior maxillary bones, are all nearly on the same plane.

Wormian bones were found in the occipital suture in two out of three.

No. 430. Skull of a native of Madagascar.—Cranium oval and well formed; longitudinal diameter rather great, and the vertex low; forehead broad, high, and well arched; a depressed line across the skull, immediately behind the coronal suture; the superciliary ridge is prominent; the nasal bones are small, triangular, and on the same plane, but the breadth between the eyes is not great; the bones of the face are of a moderate size, and the malar bones do not project forwards nor outwards; the frontal bone is nearly perpendicular with the bones of the face; the anterior nasal aperture is of the form given above; the nasal spine is long; the opening into the orbits is deep at the internal angle; the alveolar processes stand somewhat forwards. This skull has as much resemblance to the European as to that of the Negro.—*Donor, Mr. Tighe, Surgeon, 75th Regiment.*

No. 431. Skull of a Yambany, or Madagascar boy.—Cranium small and narrow; forehead low, but arched; superciliary ridge not marked; ridges for the attachment of muscles not evident; nasal processes of the superior maxillary bones large; considerable breadth between the eyes; nasal bones oblong, and very slightly arched; alveolar processes long and projecting; anterior nasal aperture of the same form as in the Negro. This skull has all the Negro peculiarities.—*Donor, D. Clarke, Esq., Surgeon, Sierra Leone.*

No. 432. Skull of a Madecasse idiot.—Cranium of large size; occiput broad, flat, and perpendicular; the two sides are not symmetrical, the right side being more prominent than the left; the forehead and vertex are broad and arched; the superciliary ridge is not marked; the face is broad and flat, and the malar bones stand forwards and outwards; the nasal processes of the superior maxillary bones are large, and the breadth between the eyes is very great; the nasal bones are slightly arched; the alveolar processes do not project; the anterior nasal aperture is of the European form; the external pterygoid plate and styloid process are large; the symphysis of the lower jaw is rather prominent; the teeth are regular and sound.

No. 248. Skull of a Moorman.—Cranium oval and well formed; nasal bones flat and on the same plane, with considerable breadth between the eyes; alveolar processes rather everted and long; numerous ossa triquetra at the superior angle of the occipital bone; sphenoid entirely out from the parietal by a process of the temporal bone; anterior nasal aperture wide, and approaching to the Negro form (see illustration).—*Same Donor.*

No. 251. Skull of a female Pariah, lowest caste.—Cranium narrow and flattened laterally; forehead high, but narrow; orbits small and contracted; external pterygoid process large; superciliary ridge not marked.—*Same Donor.*

No. 257. Skull of Kahan Mahan, a notorious Thug, who had been engaged in at least sixty different murders. He died in the Thug gaol at Lucknow, East Indies, 1840, where he had been imprisoned five years; he was about sixty-five years of age, a good-looking man.—Cranium narrow; forehead low and receding; superciliary ridges prominent; ridge for the attachment of the temporal muscle very extensive and well marked; occiput prominent; the bones are dense, thin, and transparent. *Donor, Dr. Menzies, 2nd Class S. S.*

DIVISION 12.—SINGALESE.

There are five crania from Ceylon. The cranium is of an oval form; the forehead is low and retreating; the vertex and occiput are well rounded; the space for the downward development of the brain is of moderate extent; the ridge for the attachment of the temporal muscle is not extensive nor strongly marked, except in No. 258; the superciliary ridge is well marked; the nasal bones are well arched; the alveolar processes are generally straight, but project somewhat in No. 258 and No. 260; the anterior nasal aperture is of the European form; Wormian bones were found in the occipital suture in two instances, in one of which they were of large size, cutting off the superior angle of the occipital bone; these bones were also found in the temporal and sphenoid suture in one; the foramen magnum was small in one.

No. 258. Skull of a Singalese, aged 48. A native of the district of Galli Ceylon, who was executed for murder in October, 1836. His character was very bad, and all his acts were committed in the most concealed manner.—Forehead low and receding; posterior part of head rather large; alveolar processes of the superior maxillary bone large and projecting; a large os triquetrum in the temporal and sphenoid suture; ridge for the attachment of the temporal muscles extensive and well marked.—*Donor, Dr. Sillery, Surgeon, 35th Regiment.*

No. 260. Skull of a Singalese.—Forehead low and retreating; lachrymal canal large; alveolar processes of the superior maxillary bones rather long and projecting.—*Donor, Dr. Davy, A. I. H.*

CLASS II.—SKULLS WITH PROGNATHOUS JAWS; OR THE NASAL BONES FLAT, AND ON THE SAME PLANE.

The cranium or cavity destined to contain the brain is oval and well formed. The superior maxillary bones are somewhat lengthened, and project forward; the alveolar processes of both jaws are long, broad in front, everted, and projecting, more particularly those of the superior maxillary bone. The nasal bones are large, frequently oblong, and lie on the same plane; the nasal processes of the upper jaw are also large, which causes great breadth between the eyes. The anterior nasal aperture is large and wide, and of various forms, which differs in a remarkable manner from that of the oval-shaped skulls.

NEGROES FROM THE WEST COAST OF AFRICA.

The chief peculiarities in the general form of the strongly marked Negro skull are the great forward projection of the superior maxillary bones, particularly of the length, and eversion of the alveolar processes. In general the superior maxillary bone does not project, nor is the skull compressed laterally; this occurs only in the exaggerated specimens of the Negro race, and out of 128 African crania these strongly marked peculiarities are only found in two instances, viz., No. 329 and No. 377. With the exception of the Kroomen, and those already mentioned, the upper jaw does not project in front of the frontal bone; the alveolar processes alone project, and in some are only everted. The nasal bones are large, generally oblong, and lie on the same plane; the nasal processes of the superior maxillary are large and broad, causing great breadth between the eyes. The anterior nasal aperture is large and wide, and its angle rounded off. They vary in form, being in some of a rounded, in others of square form, and are very different from European.

In the European skulls the nasal bones are highly arched, and a very small portion only of the superior maxillary enters into the formation of the base of the anterior nasal aperture. But in the Negro, and in many other races, this aperture is generally very large inferiorly, and its two lower angles rounded off. The alveolar processes in them are large, projecting, broad in front, and form a larger segment of a circle. The size and

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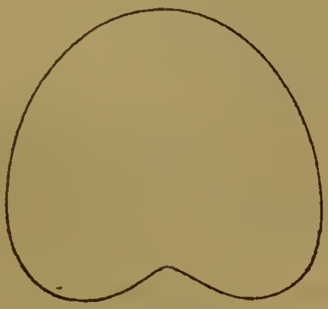
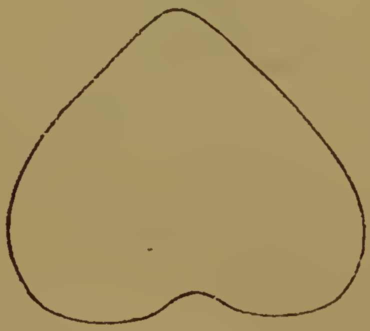


No. 299.

MANDINGO.



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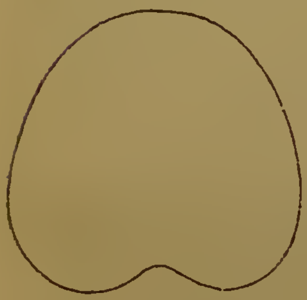
ASHANTI.



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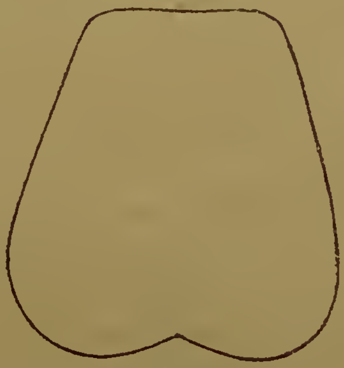
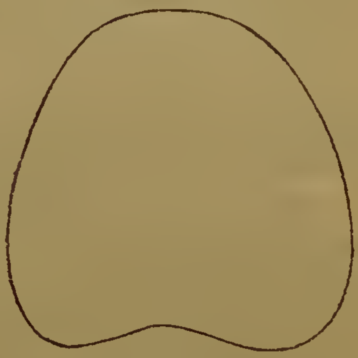


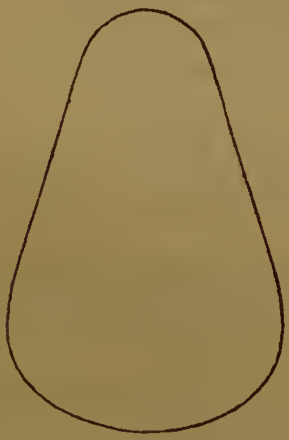
No. 348.

NEGRO.



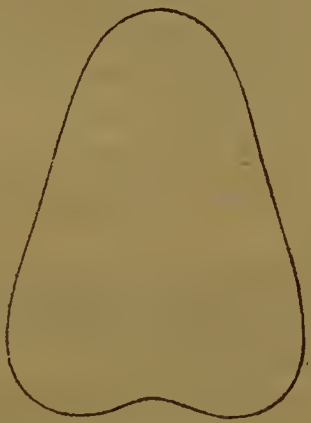
No. 371.

GRECIAN.



No. 4.

ENGLISH.



No. 89.

form of this aperture is produced by a larger portion of the superior maxillary entering into the formation of the base of the opening; the size and position of the nasal bones, which are almost always on the same plane; the large size of the nasal processes of the superior maxillary bones, and the great breadth between the eyes; thus giving a round or square form, or a form difficult to describe in words, to the opening, which differs very remarkably from the European.

The posterior nares are not generally large, but in some skulls the pterygoid processes stand farther apart, and are stronger, particularly the external pterygoid plate, which in many is broad, flat, and turned outwards.

The zygoma is of the usual size, and has the same direction as in the oval-shaped skulls; in some few instances they project forwards and downwards, but not outwards, as in the broad-faced crania.

The cranium is of an oval form, and not compressed laterally; the forepart of the head is small, compared to the posterior. The forehead is high and well arched, smooth, and without any marked superciliary ridge; the frontal sinuses are very small, or almost absent. The ridge for the attachment of the temporal muscle is very generally of small extent, and not well marked, as also those on the occiput. The orbits are in general larger, more capacious, and of a circular or square form; but in some they are smaller.

Wormian or triquetral bones are as frequent in Negro as in European crania. Out of 128 Negro skulls, these bones were found in seventy-two instances in the occipital suture; and in twelve additional instances, one, sometimes two, or even more, very large ossa triquetra at the superior angle of the occipital bone, occasionally dividing it into parts, or cutting off its superior angle.

In the same number of Negro skulls, small Wormian bones were found in the temporal and sphenoid suture in ten instances.

The sphenoid was entirely cut off from the parietal bone, by a process of the temporal bone, in thirteen out of 128, but in the greater number the sphenoid joins the parietal bone to a greater or less extent, and frequently for the space of a quarter of an inch.

The lachrymal canal is in general very large, and the depression on the lachrymal bone for the lachrymal sac is frequently very small.

In the 128 skulls the lachrymal groove was formed entirely on the nasal process of the superior maxillary in eleven instances, and in some instances the lachrymal bone was very small, or almost absent.

The occipital foramen is generally of the usual size, but in thirteen instances it was thought to be small, and in five large, in proportion to the size of the cranium. The position of the foramen magnum was found to be exactly behind the transverse lines bisecting the antero-posterior diameter of the base of the cranium, which is the position in European skulls. In those Negro skulls which have the alveolar processes long and projecting, the anterior half of the line is lengthened in some degree, but if allowance is made for it, there is no perceptible difference. The situation of the foramen magnum is, therefore, the same in Negro as in European skulls.

The external meatus is not larger, nor in any way different from Europeans.

The mastoid and styloid processes are in general of moderate size, in some small, and in others large, but there is nothing constant in this respect. In none of the Negro skulls was there the slightest trace of a suture resembling an intermaxillary bone. The infra-orbital canal was found in some skulls rather larger than in European, in others smaller, but generally about the same size; the different foramina for the transmission of nerves likewise varied in size, but there was nothing constant in this respect.

The lower jaw is in general neither thicker nor stronger, and the angle is the same as in Europeans; the part covered by the masseter muscle is not large and rough.

The teeth are generally strong, thick, and sound, and the incisors long and sharp. The number of the teeth is the same as in Europeans; in two skulls, No. 321 and No. 352, there are eighteen teeth in the upper jaw; the supernumerary tooth is a bicuspidate, which has partly descended, but there is not space enough in the alveoli, and the teeth are there partially displaced. In No. 348 there are nine teeth in the left superior maxillary bone, and eight in the right; and the teeth of both sides are quite regular, and not displaced. The sockets for the teeth are generally very deep, ascending as high as the nasal aperture.

DIVISION 1.—MANDINGOES.

The Mandingo skulls are the best formed of the Negroes in the collection. Their skulls are large, oval, and capacious; in No. 263, the breadth between the eyes, the flattening of the nasal bones, and the form of the anterior nasal aperture, are the only Negro characters; No. 266 resembled a European skull in every particular, with the exception of the alveolar processes being slightly everted. No. 264, with 285, are the only instances in which the teeth are not sound or are displaced from their sockets. Wormian bones were found in two instances. In two the lachrymal groove was formed entirely on the nasal process of the superior maxillary bone; and in two the occipital foramen was small.

No. 263. A Mandingo-man's skull.—This skull does not display much of the negro peculiarities. The cranium is of an oval form; the forepart of the head is rather small compared to the posterior, but the forehead is arched, and nearly perpendicular with the bones of the face. The ridge for the insertion of the temporal muscle is rather extensive and well-marked. The nasal processes of the superior maxillary bone are large, and the nasal bones are nearly on the same plane, and form a smooth continuous surface with the forehead. The alveolar processes have a circular sweep, but they do not project. The lachrymal canal is rather large, and formed entirely on the nasal process of the superior maxillary.—*Donor*, *R. Clarke*, *Esq.*, *Surgeon.*

No. 264. A Mandingo-man's skull.—Cranium large and well formed; forehead straight and well arched; superciliary ridge marked. Nasal processes of the superior maxillary bones large and flat, and the two from the opposite sides join at the frontal bone, so as to exclude the nasal bones from the frontal. The alveolar processes of the superior maxillary bones are very large and projecting. The teeth are very irregular in their sockets, which are very deep; the surfaces of the molar teeth are worn down to the fangs on their outer side, and those of the lower jaw are displaced inwards. The ramus of the lower jaw is very broad and expanded.—*Same Donor.*

No. 266. A Mandingo-man's skull.—The cranium is oval and well formed, and has very little of the Negro peculiarities. Ridge for the insertion of the temporal muscle strongly marked immediately above the mastoid process. The nasal bones are prominent and arched; the alveolar processes are very slightly everted.

DIVISION 2.—IOLOFS.

The skull is large, oval, and well formed. It has the Negro character in the position of the alveolar processes, and the nasal bones, and the form of the anterior nasal aperture.

No. 267. Skull of an Iolof-woman.—Cranium large, oval, and well formed; nasal bones large and slightly flattened; alveolar processes project, and are partially absorbed from advanced age, the teeth having dropped out; lachrymal canal of large size.—*Donor*, *R. Clarke*, *Esq.*, *Surgeon.*

DIVISION 3.—TIMMANIS.

These three skulls are large and capacious. No. 268 is compressed laterally, and there is a bulging in the temporal region. The cranium of No. 269 is beautifully arched, but the Negro peculiarities are strongly marked in the breadth and flatness between the eyes, the form of the anterior nasal aperture, and the projection of the alveolar processes.

Ossa triquetra were found in the three Timmanis' skulls in the occipital suture; in one they were large and numerous, in another a suture cut off the superior angle of the occipital bone. Wormian bones were found in one instance in the temporal and sphenoid suture.

No. 268. A Timmanis-woman's skull.—Cranium compressed laterally, and bulging into the region of the temporal bone; no ridge for the insertion of the temporal muscles; forehead and vertex high; nasal bones high and arched; bones of the face small; alveolar processes projecting; orbital plate of the frontal bone arborescent, and shows marks of vascularity; the coronal and sagittal sutures are obliterated; the occipital bone has not a sharp angle, but forms almost a straight line across the head at its superior part; lower jaw thick and rounded, and its angle obtuse.—*Donor, R. Clark, Esq., Surgeon.*

No. 269. A Timmanis-woman's skull.—Cranium large and well formed; the forehead is broad, high, smooth, and well arched; the occiput is rather prominent, there are numerous large ossa triquetra in both sides of the occipital suture, and one between the sphenoid and parietal bones; there is great breadth between the eyes, and the nasal bones are on the same plane; the alveolar processes are long and very projecting; the orbits are small, and the orbital plate of the frontal bone shows marks of vascularity.—*Donor, R. Clark, Esq., Surgeon.*

DIVISION 4.—SOSSOO, OR SUSUS.

These two crania are oval and well formed, and the bones are of fine texture. They have the Negro peculiarities, but not strongly marked. No. 272 has them only in a slight degree.

Wormian bones were found in the occipital suture in one instance, and in the temporal and sphenoid suture in one. The foramen magnum is small in one.

No. 272. Skull of a Sossoo boy.—Cranium of an oval form, and well formed, and has few of the Negro characters; ridge for the insertion of the temporal muscle of small extent, and not well marked; one os triquetrum between the sphenoid and parietal bones; nasal bones oblong, and on the same plane; alveolar processes project; lachrymal canal is large.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 5.—KASSO.

These three skulls are oval and well formed. Two are from young subjects, and in them the mastoid processes are small, and the space for the downward development of the cerebellum is rather great. The alveolar processes project, but not to a great degree. The nasal bones are oblong, and on the same plane in No. 273 and No. 274. In No. 275 the superciliary ridge is marked, and the nasal bones are arched. Ossa triquetra were found in the three skulls; in one they were very large and numerous. In one the sphenoid was entirely cut off from the parietal by a process of the temporal bone. Foramen magnum large in one.

No. 273. Skull of a Kasso or Cassoo girl.—Cranium of an oval form; forepart of the head small compared to the posterior; forehead high, and nearly perpendicular with the bones of the face; insertion of the temporal muscle of small extent, and not well defined, as also those on the occiput; parietal protuberance prominent; several large ossa triquetra; sphenoid bone entirely cut off from the parietal by a process of the temporal bone; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but on the occipital bone; great breadth between the eyes; nasal bones flat; alveolar processes projecting; the lateral part of the ramus of the lower jaw is very small and narrow, and the angle obtuse; socket for the teeth of great depth.—*Donor*, *R. Clarke, Esq., Surgeon.*

No. 274. Skull of a Kasso, or Cassoo boy.—Cranium compressed laterally; forepart of head small compared to the posterior; forehead high and smooth, and nearly perpendicular with the bones of the face; space for insertion of the temporal muscle of small extent, and not well marked, as also those for the muscles on the occiput; eighteen large ossa triquetra in the occipital suture; zygomatic arch small; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but on the occipital bone; nasal bones elevated and slightly arched, but rather broad; alveolar processes project; angle of the lower jaw obtuse.—*Donor*, *R. Clarke, Esq., Surgeon.*

No. 275. Skull of a Kasso, or Cassoo man.—Cranium large and well formed; forehead broad and high; superciliary ridge slightly marked; occiput prominent; no marked insertion for the temporal or other muscles; considerable breadth between the eyes, but the nasal bones are arched; the alveolar processes seem to have projected, but they are partly absorbed and destroyed; lachrymal canal of large size.

DIVISION 6.—KROOMEN.

These five skulls display the Negro peculiarities in a high degree. The superior maxillary bone projects very much, and likewise the alveolar processes, which are very long. The breadth between the eyes is great, and the nasal bones are on the same plane, with the exception of No. 276, which are arched, and the superciliary ridge prominent. No. 277 is an exaggerated specimen of the Negro. No. 280 is of a peculiar square form. None of these skulls are, however, compressed laterally. Wormian bones were found in three instances in the occipital suture, in one of which there were three large bones cutting off the superior angle of the occipital. In one the sphenoid was entirely cut off from the parietal by a process of the temporal bone. In one there was a suture in the centre of the frontal.

No. 276. Skull of a Krooman, Samuel Williams, aged 26, who died of dysentery; was engaged in the slave trade as a labourer, and bore a good character.—Cranium large, oval, and the longitudinal diameter considerable, but not compressed laterally; forehead large and high; superciliary ridge marked, and a depression at the junction of the frontal and nasal bones —vertex flat; a suture in the centre of the frontal bone; nasal bones high and arched; alveolar processes very long and projecting, and of great depth from the crown of the teeth to the palate; lachrymal canal of large size; external plate of the pterygoid large; styloid process long and strong; the anterior part of the ramus of the lower jaw is of great depth.—*Donor, R. Clarke, Esq., Surgeon.*

No. 277. Skull of a Kroo boy.—Cranium compressed laterally; forepart of the cranium small and narrow compared to the posterior; insertion of the temporal muscles of small extent, and not well marked, as also those on the occiput; mastoid processes very small; considerable breadth between the eyes, and the nasal bones are on the same plane; alveolar processes projecting; the first set of teeth have not been shed; the permanent teeth are seen descending.—*Same Donor.*

No. 280. Skull of a Krooman. — Cranium of a square shape; vertex broad and flat, and a depression along the sagittal suture, separating the parietal protuberances; forehead high, broad, and well arched; sphenoid cut off from the parietal by a process of the temporal bone; considerable breadth between the eyes; nasal bones somewhat flattened; alveolar processes very long and projecting; lachrymal canal very large; styloid processes strong, and of considerable strength.—*Same Donor.*

DIVISION 7.—HAUSA.

This skull shows the Negro characters usually found in skulls of young subjects.

No. 281. Skull of a Hausa boy.—Cranium narrow; the forepart of the head is small compared to the posterior; a projecting angle on the centre of the frontal bone; ridges for the insertion of muscles not marked; nasal bones oblong, and on the same plane; alveolar processes projecting; lachrymal canal large.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 8.—FANTI.

This is a large, heavy, but well-formed skull, and the Negro peculiarities are strongly marked, but not in an exaggerated degree. There is a large os triquctrum cutting off the superior angle of the occipital bone.

No. 282. Skull of a Fanti.—Cranium large, oval, and well formed; forehead broad, and well arched; a very large os triquetrum cutting off the superior angle of the occipital bone; bones of the face large and broad; great breadth between the eyes, and the nasal bones are on the same plane; lachrymal canal very large; alveolar processes describe a large semicircle, and project considerably; pterygoid process large and strong, particularly the external plate; styloid process also large and strong.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 9.—ATTAN, OR APPA.

These two skulls are large, well formed, and show the Negro peculiarities in a marked but not exaggerated degree, especially No. 283. In No. 284 the nasal bones are small and slightly arched, and the superciliary ridge marked. Wormian bones are found in the occipital suture of both.

No. 283. Skull of an Attan or Appa-man.—Cranium large and oval; forepart of the head rather small compared with the posterior; forehead broad, high, and well arched: great breadth between the eyes, and the nasal bones flat; bones of the face large, and the alveolar processes expanded and projecting; ossa triquetra in the occipital and mastoid sutures.—*Donor, R. Clarke, Esq., Surgeon.*

No. 284. Skull of an Attan or Appa-man.—Craniam oval and well formed, with very few of the Negro peculiarities; the forehead is broad, high, and well arched; ridges for the insertion of muscles not marked; nasal bones small and arched; alveolar processes project to a great extent.—*Same Donor.*

DIVISION 10.—PAPAS, or MAHAI.

These three skulls are small, oval, and well formed, and have the Negro peculiarities in a marked degree. There are no marked ridges for the insertion of muscles; the nasal bones are oblong, and on the same plane in two, but in No. 286 they are arched; the alveolar processes are long and projecting; in one there are ossa Wormiana in the occipital suture.

No. 285. Skull of a Papas, Papaus, or Mahai girl.—Cranium small, oval, and not compressed laterally; forehead small, but arched, and nearly perpendicular with the bones of the face; ridges for the insertion of muscles of small extent, and not well marked; mastoid processes very small, and the skull, when placed on its base, does not rest on these processes, but in the condyles of the occipital bones; nasal bones large, oblong, and on the same plane, with great breadth between the eyes; alveolar processes everted and projecting; lachrymal canal of large size.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 11.—BARCONKA, OR MOKA.

Of these two skulls, one of them, No. 289, displays scarcely any of the Negro peculiarities. No. 288 is of a peculiar form, and shows them to a great degree. Both skulls slope gradually, and become narrower from the occiput to the occipital foramen; ossa triquetra were found in the occipital and temporal sutures of both skulls; in the former they are very numerous.

No. 288. Skull of a Barconka, or Moka girl.—Cranium of a square form, and not compressed laterally; forehead large, broad, and high; vertex broad and flat; occiput prominent, and sloping to a narrow point towards the occipital foramen, giving a narrow, contracted appearance to the base of the skull; mastoid processes very small; an os triquetrum in the suture between the temporal, parietal, and sphenoid bones, which entirely cut off the latter bone from the parietal; ridges for the insertion of muscles of small extent, and not well marked; internal orbital angle of the frontal bone is large and broad, and descends for half an inch to meet the nasal bones, which are oblong, and on the same plane; zygomatic arch does not stand out from the head, but is small and flat; the bones of the face project very much, and the alveolar processes are long and projecting, but the superior maxillary bone is narrow.—*Donor, R. Clarke, Esq., Surgeon.*

No. 289. Skull of a Barconka, or Moka man.—Cranium oval and well formed; forehead large, broad, and high; the skull becomes slightly contracted from the occiput towards the occipital foramen; two ossa triquetra in the right, temporal and sphenoid sutures, and numerous ossa Wormiana in the occipital suture; nasal bones arched, and the alveolar processes do not project.—*Same Donor.*

DIVISION 12.—IBO.

These nine crania are all large, capacious, oval, and well-formed, and the Negro characters are marked, but not in an exaggerated degree; the nasal bones are oblong, and on the same plane; the alveolar processes are prominent, but do not project very much; the anterior nasal aperture is of the peculiar form already mentioned. No. 291 has the superciliary ridge very prominent, which is very rare in a Negro skull. No. 293 is very large, heavy, and the bones are of great thickness; ossa triquetra were found in four instances in the occipital suture; in two, the sphenoid was entirely cut off from the parietal by a process of the temporal bone; in one, there is a suture in the centre of the frontal bone; in one, the occipital foramen was large.

No. 291. Skull of an Ibo-man.—Cranium large, and of an oval form; forehead broad, and slightly retreating; superciliary ridges very prominent; vertex broad and arched; great breadth between the eyes, and the nasal bones flat; face broad, but rather sharp; alveolar processes do not project; pterygoid processes large and strong, especially the external pterygoid plate; lachrymal canal of large size.—*Donor, R. Clarke, Esq., Surgeon.*

No. 293. Skull of an Ibo, a notorious thief.—Cranium large, and of an oval form; forehead broad, high, and slightly retreating; posterior part of head large; mastoid processes large and strong; bones of the face broad and flat; great breadth between the eyes, and the nasal bones are oblong, and on the same plane; lachrymal canal of large size; alveolar processes project; external pterygoid plate large and broad, and turned outwards; styloid processes long and strong; lower jaw broad and thick. This skull is of great weight, viz., 1 lb. 11 oz. 3 drs. —*Donor, Dr. Foulis, Assistant Staff Surgeon.*

No. 299. Skull of an Ibo girl.—Cranium oval, and well formed; forehead high, and well arched; ridge for the insertion of muscles of small extent, and not well marked: nasal bones large, and on the same plane, with great breadth between the eyes; alveolar processes project slightly.—*Donor, R. Clarke, Esq., Surgeon.*

DIVISION 13.—ASHANTI.

Sixty-one skulls of Ashantis are in the collection. The great similarity between the whole of these crania is most remarkable: the cranium is of a moderate size, oval and well formed; the bones of the face are likewise of a proportionate size, and do not project; the frontal bone is frequently perpendicular with the bones of the face; they display the Negro peculiarities in having the nasal bones oblong and in the same plane, the breadth between the eyes, the form of the anterior nasal aperture, which is generally that of No. 343, and the projection of the alveolar processes. These characters are marked, but are not in an exaggerated form. The alveolar processes are frequently broad in front, and do not project; but the position of the socket of the teeth causes the teeth to project. No. 322 has the nasal bones highly arched, and the alveolar processes do not project: this skull is of a rounder form than the others. No. 329 shows the Negro characters in a high degree, and is one of the worst formed skulls in the collection: the forehead is small, low, and receding; the maxillary bones project very much, as also the alveolar processes; the lachrymal canal is formed entirely on the nasal process of the superior maxillary bone. Ossa triquetra were found in the occipital suture in thirty-seven instances; and in two additional instances large Wormian bones cut off the superior angle of the occipital bone; these bones were also found in the temporal and sphenoid suture in four; the sphenoid was entirely cut off from the parietal, by a process of the temporal bone, in six; the lachrymal groove was formed entirely on the nasal process of the superior maxillary in nine; the foramen magnum was small in four, and large in two; a suture in the centre of the frontal bone in one.

No. 322.—Cranium of an oval form, and shows more of the Negro peculiarities; forehead rather low and receding; nasal bones very high and well arched; alveolar processes are straight, and do not project.—*Donor, Michael Sweeny, Esq., Staff Surgeon.*

No. 329.—Forehead very narrow and receding, and small compared to the posterior part; superior maxillary bones project; nasal bones slightly arched; alveolar processes projecting; lachrymal canal very large, and formed entirely on the nasal process of the superior maxillary bone; lachrymal bones very mall; orbits contracted.—*Same Donor.*

No. 343.—Cranium of an oval form; occiput projects; the forehead is high, well arched, and nearly perpendicular with the bones of the face; the transverse diameter is greater immediately above the mastoid process than at the parietal protuberances; ridges for the insertion of muscles not marked; great breadth between the eyes; the nasal bones are large, oblong, and on the same plane; the alveolar processes project very slightly.—*Same Donor.*

No. 348.—Cranium large, oval, and well formed; nasal bones oblong, and on the same plane; alveolar processes long and projecting; styloid processes long, and of great strength; lachrymal canal of large size.—*Same Donor.*

DIVISION 14.—COLABAR.

These four skulls are oval, capacious, and well formed; they show the Negro characters, but not strongly marked. No. 361 has the nasal bones arched; in No. 362 the skull is of a square form; the superciliary ridge marked; and the alveolar processes are long, but they do not project to a great extent. Wormian bones were found in each skull; in one skull there are two of large size, cutting off the superior angle of the occipital bone; triquetral bones also exist in the temporal and sphenoid suture in one; the sphenoid is entirely cut off from the parietal by a process of the temporal bone in one.

No. 361. Skull of a Colabar-man, aged 36, who died of dysentery.—Cranium oval and well formed; forehead high and well arched, but narrow; left wing of the sphenoid entirely cut off from the parietal by a process of the temporal bone; breadth between the eyes not great, and the nasal bones are arched; alveolar processes very long and projecting; styloid process very long and strong.

No. 362. Skull of a Colabar or Karaba-man, who died of dysentery.—Cranium large, and of a square form; forehead high, broad, and arched; posterior part of skull large; two very large ossa triquetra cutting of the superior angle of the occipital bone; a depression at the junction of the frontal and nasal bones; considerable breadth between the eyes; nasal bones small, and on the same plane; alveolar processes very long and projecting; lachrymal canal of a large size.

DIVISION 15.—KAUNGA.

These three skulls are oval and well formed; they have the Negro characters in the nasal bones being on the same plane, and in the form of the anterior nasal aperture; the alveolar processes project, though not to a great extent. No. 367 has the frontal bone nearly perpendicular with the bones of the face.

No. 365 has the superciliary ridge prominent; Wormian bones were found in three instances in the occipital suture; and in one in the temporal and sphenoid suture.

No. 365. Skull of a Kaunga-man.—Cranium oval; forehead low, narrow, and retreating; superciliary ridge prominent; considerable breadth between the eyes; nasal bones oblong, and on the same plane; alveolar processes long and projecting.

No. 367. Skull of a Kaunga-woman. Cranium long and rather narrow; forehead low; an os triquetrum in the temporal and sphenoid suture; considerable breadth between the eyes; the superior half of the nasal bones are on the same plane, and the inferior half somewhat arched; alveolar processes long and projecting.

DIVISION 16.—CONGO.

These three skulls are of small size, of a round or oval form, and have few of the Negro characters; neither the superior maxillary bone nor the alveolar processes project; the nasal bones are on the same plane, and in one skull they are of an oblong form; this, with the form of the anterior nasal aperture, are almost the only points of resemblance to the Negro. The skulls are of light weight; bones thin and transparent, and of a fine texture; the bones of the face are of small size; in No. 369 the nasal bones are small and slightly arched; there is a bulging in the temporal region in all of them, and likewise in the occipital region for the downward development of the cerebellum; the mastoid processes are small in the two from young subjects; Wormian bones are found in two instances in the occipital suture.

No. 368. Skull of a Congo boy, aged thirteen years.—Cranium small; forehead and vertex high and well arched; a bulging over the temporal region; occiput broad, high, and almost perpendicular from the vertex to the occipital foramen; the two sides of the occiput are not symmetrical, the left side being more flattened than the right; the bones of the face are of small size; considerable breadth between the eyes; nasal bones oblong and on the same plane; the alveolar processes slightly everted; the permanent cuspidate tooth of the upper jaw has not descended, and is seen lying in a cavity immediately below and to the outer side of the nasal aperture.

No. 369. Skull of a Congo-woman.—Cranium small, oval, and well formed; bones of the face small; breadth between the eyes not great; nasal bones small, and slightly arched; alveolar processes everted.

DIVISION 17.—MISCELLANEOUS AFRICANS.

These twenty skulls of Negroes from the west coast of Africa display in each great variety as to form: some approach very near to the European, such as Nos. 372, 373, 374, 382, 384, &c., which have the nasal bones more or less arched, and the alveolar processes do not project to a great degree. No. 377 displays the Negro peculiarities in an exaggerated degree. This skull, with No. 329, an Ashanti already mentioned, are very much alike, and are the only skulls which are compressed laterally to a great extent. No. 376 is of a peculiar rounded form, with a bulging in the temporal region; the superciliary ridges are prominent; the nasal bones very highly arched; and the alveolar processes perpendicular. Wormian bones were found in ten instances in the occipital suture; and in four additional instances they were of large size, cutting off the superior angle of the occipital bone; the sphenoid was entirely cut off from the parietal by a process of the temporal bone in two; in one there was a suture in the frontal bone; the occipital foramen was small in six, and large in one.

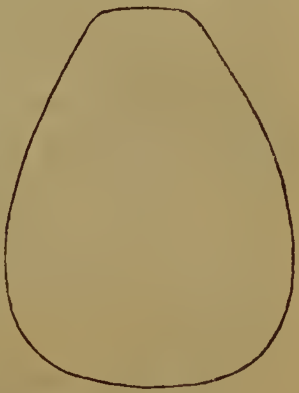
No. 371. Skull belonging to a complete skeleton of an African Negro.—Cranium large and oval; forehead broad and well arched, but small compared to the posterior part of the skull; ridge for the insertion of the temporal muscle well marked, and situated high on the head; superciliary ridge rather prominent, and a depression at the junction of the frontal and nasal bones; breadth between the eyes not great; nasal bones oblong, and on the same plane; alveolar processes very long and projecting; lachrymal canal of large size.

No. 372.—Cranium large, oval, and well formed, and displays few of the Negro peculiarities; ridge for the insertion of the temporal muscles ascends rather high on the head, and those on the occiput are well marked; nasal bones high and arched, and the breadth between the eyes is not great; the alveolar processes project slightly.

No. 373.—Cranium oval; forehead arched, but small compared to the posterior part of the skull; a suture in the centre of the frontal bone; two large ossa triquetra at the superior angle of the occipital bone; considerable breadth between the eyes; nasal bones slightly arched; malar bones large; alveolar processes project very much; external plate of the pterygoid process broad; styloid process long.

No. 374.—Cranium oval and well formed, and display few of the Negro peculiarities; the forehead is high, well arched, and nearly perpendicular with the bones of the face; the nasal the occiput descends almost perpendicularly, and is broad and flat. In No. 476 the skull is much more flattened, and the occiput pushed backwards; the compression seems to have been applied, not only to the forehead, but also to the vertex, and flattened from before backwards and from above downwards. In No. 475 the compression seems to have been applied to the forehead, and the head to have rested (probably on the cradle) on some hard point of resistance, in this manner, to have produced the flat, broad, and perpendicular occiput.

The anterior nasal aperture is of moderate size, and of this form in No. 475. The foramina for the transmission of the nerves, and likewise the foramen magnum, are of moderate size, and the position of the latter opening is not different from that in other skulls; the transverse diameter of the base of the skull is great in proportion to its antero-posterior diameter: the bones of the skull are generally thick, and of hard texture. The details will, however, be found under the description of each skull; Wormian bones were found in the occipital suture in one instance: the left wing of the sphenoid was entirely cut off from the parietal by a process of the temporal bone in No. 476.



No. 475.

No. 473. Skull of an Indian chief from Fort Marden, Canada.—Cranium of a large round form; forehead broad, but low, and gradually recedes towards the vertex, which is also low, and of great breadth; the ridge for the attachment of the temporal muscle is extensive, and well marked: the superciliary ridge is prominent; the breadth between the eyes is great; the nasal bones are arched, but not highly; the nasal process of the superior maxillary bone is not large. The face is very broad and flat: the malar bones stand outwards, and the zygomatic arch has a sweep in the same direction; there is a depressed groove on the malar bone, immediately below the external angular process of the frontal bone: the anterior nasal aperture is large, and of an oval form; the alveolar processes are broad in front, straight, and do not project. The lower jaw is broad, thick, and strong; the teeth are regular, and their surfaces are worn down; the incisors are round, and not sharp at the point. The orbits are square, but not deep: the lachrymal canal is large; the base of the skull is very broad, and the transverse diameter is much greater in proportion to its antero-posterior, when a line is drawn across the base of the skull between the origin of the zygomatic process and the meatus auditorius, and also when measured from the zygomatic arches, and likewise the intermastoid line. The space for the downward development of the cerebellum is large.—*Donor, Dr. Wm. Horne, 2nd Class Staff Surgeon.*

No. 474. Skull disinterred from a burying-ground, at Fort Amherstburgh, Canada, by Assist. Surgeon Gordon, 34th Foot; presented by Dr. Wm. Horne, 2nd Class Staff Surgeon.—The cranium is of a round form; the forehead moderately high, and well arched, as likewise the vertex; the ridges for the attachment of the temporal and other muscles are not extensive nor strongly marked: the breadth between the eyes is not great: the nasal bones are well arched, but not very highly; the face is rather broad, but not flat. The malar bones stand outwards, and the zygomatic arch has a sweep in the same direction; the alveolar processes are straight, and do not project. The few teeth that remain are sound, and their surfaces worn down. The lower jaw is of moderate size, the angle obtuse, and the alveolar processes are partially absorbed; the transverse diameter of the base of the skull is greater in proportion to the antero-posterior; the lachrymal canal is large, the orbits are not deep.

No. 475. Skull of a Flat-head North American Indian.—The forehead is very retreating; the face projects to a great extent, and the occiput is flat and perpendicular: the frontal bone begins to retreat immediately above the orbits, and is continued gradually sloping upwards to the vertex, from which the occiput descends abruptly, and almost perpendicularly to the foramen magnum; the ridges for the attachment of the temporal and other muscles are not extensive, nor well marked; the superciliary ridge is slightly marked; the space between the eyes is not great, and is flat: the superior half of the nasal bones are on the same plane, the lower half being slightly arched: the malar bones stand somewhat outwards, and the zygomatic arch has a sweep in the same direction. The whole of the bones of the face project in front of the frontal bone. The superior maxillary bones project to a very great extent, and the alveolar processes are also very long and projecting. The teeth are regular, and their surfaces very much worn down; the incisor teeth are round and thick, and not sharp at the point. The transverse diameter of the base of the skull is very great compared to the antero-posterior; the space for the downward development of the brain is of moderate extent.—*Donor, Dr. Muir, A. S., 42nd Regiment.*

No. 476. A Carib skull from St. Vincent.—The cranium is flattened to a very great extent from before backwards and from above downwards. The brain seems to have been all pressed backward, and its development arrested to a great extent; the frontal bone recedes immediately above the orbits, and gradually slopes backwards to the vertex, which is not much more elevated than the forehead: the vertex gradually slopes backwards and downwards to the occiput, which projects, and is narrow from above downwards; the occiput is very flat, and nearly the whole of the occipital bone rests on a plane surface. There is no space for the downward development of the brain; the space between and immediately behind the mastoid processes is very flat and hollow; the transverse diameter of the base of the skull is somewhat greater in proportion to the antero-posterior; the left sphenoid is entirely cut off from the parietal by a process of the temporal bone; the bones of the face are partially destroyed; the breadth between the eyes seems to have been considerable, and the bones of the face must have projected to a very great extent; the orbits look upwards, and have a horizontal position.

APPENDIX.

STUFFED FIGURE OF A HOTTENTOT FEMALE.

	Ft.	In.
Height,	4	7¼
Length of superior extremities from acromion,	2	2½
,, arm from acromion to olecranon process,	0	11½
,, fore-arm from olecranon process to points of fingers,	1	3
Circumference of arm,	0	9
,, wrist,	0	5¼
Length of lower extremity from the crista ilii to sole of foot,	2	7¾
Circumference of thigh,	1	7½
,, knee,	1	0½
,, calf,	0	11⅔
,, ankle,	0	7
,, chest round the nipple,	2	8¾
,, waist,	2	1½
,, pelvis,	3	0

The diameters of the cranium are given in the Tables.

The figure is well-proportioned, as will be seen from the above measurements. The upper and lower extremities are well made; the foot is small, but not well arched, and the toes are widely separated, but this may have been caused in preparing the figure. There is no fat on the inner side of the knees: the upper extremities are remarkably well made, and the hands small, and beautifully formed, and the points of the fingers reach to the middle of the thighs. The figure is straight and upright, the shoulders well thrown back, the neck and chest are remarkably well formed, and the latter well expanded. The breasts are large, and rather pendulous; the waist is small. The abdomen is of moderate size, and not protuberant; the hips are large, and project to a great extent, from the enormous mass of adipose substance under the integuments. There is no hair on the pubes, and the nymphæ hang down to the extent of $2\frac{1}{2}$ inches; it is one inch in breadth at the base, and gradually tapers to a point; its size must have been much greater during life. The head is broad and square; the face broad, flat, and the lower part narrow; the forehead is straight, high, and well arched; the ears are placed far back on the head, the distance from them to the prominent cheek-bones being very great. There is a fold or border posterior to the tragus; the hair is very short and woolly, and grows in small tufts, leaving the scalp visible between them. The space between the cheek-bones is broad and flat; the external angular process of the frontal bone and the cheek-bones are high and prominent, and the latter stand forward and outwards; these, with the narrow pointed chin, form nearly a triangle. The breadth between the eyes is great, and there is scarcely any perceptible bridge of the nose; the nostrils are small and depressed; the eyebrows are straight, not arched, and the hair is scanty; the eyelashes are thick, but not long. The eyes have only a slight obliquity, the external angle being drawn a little downwards and outwards; their corners intersect somewhere towards the forehead, and not towards the middle of the nose. The lips are thin, and the alveolar processes and the teeth project; the teeth are sound and regular; the incisor teeth of the upper jaw are broad and somewhat sharp at the point; those of the lower jaw are short, thick, round, and truncated, and their surfaces smooth and worn down.—*This Hottentot figure was prepared and presented to the Museum by Andrew Smith, M. D., D. G.*

HISTORY OF AND DISSECTION REPORT ON A BUSHMAN NAMED TERENCE CANNON, MADE BY DR. WILLIAMSON, STAFF SURGEON, SECOND CLASS.

"On the 30th of April, 1845, a squadron of the 7th Dragoon Guards, with 300 Grigua Horsemen, forming the advance of a field force on service across the great Orange River in South Africa, came up with a body of rebel Boers, then in arms against her Majesty's Government. The rebels were about 700 strong, and had two pieces of cannon: they were routed. Lieutenant Gray, at the head of a small party, succeeded in capturing one of the enemy's cannon. This cannon was drawn by twelve oxen, and on the leader was a young Bosjesman, who, with other prisoners, were secured, and accompanied the troops. The following morning Lieutenant Gray was induced to send for the lad, who attached himself to him, and followed him on the return of the troops to the colony, and eventually to England, where he arrived on the 27th of April, 1847, and died on the 21st of April, 1848.

"Lieutenant Gray made many particular inquiries from the Hottentots and Bosjesmans at the time of the lad's capture, and from them, as well as from the lad's own statement, he has no hesitation in saying, there cannot be a doubt but that the lad was one of the very few pure Bushmans still existing across the great Orange River. His mother sold him, when very young, for three sheep to Carl Pretorius, one of the emigrant farmers, and subsequently an active leader of the rebels on the day they were encountered by her Majesty's troops. The lad was baptized Terence Cannon, and at the time of his death is believed to have been about seventeen years of age.

(Signed) "HAMILTON GRAY,
"*Captain*, 7*th Dragoon Guards.*

"*Maidstone*, 24*th April*, 1848."

On inspection, the first thing that struck the eye was the formation of the head and face. The skin was of a brown tawny colour, nearly the same as the complexion many Europeans present when they have just returned after a long residence in a tropical climate. With the exception of the head, which had all the characters of a genuine Bushman well marked, and the slight tinge of the skin, there was nothing different, on an external view, from a European boy of the same age. He was evidently under fourteen years of age, as there were no signs of puberty, the pubes being destitute of hair; the body was emaciated, and generally well proportioned; the arms of the usual length, the points of the fingers reaching to the middle of the thighs; feet flat, the arch not well formed, and the scaphoid rather prominent; lower extremities in other respect well made, and no masses of fat on the buttocks or on the inner sides of the knees; the hair was very short, black, woolly, and in small tufts, and thinly sown, the scalp being apparent between the tufts; eyebrows black, not curved, but straight, thinly sown, and widely separated one from the other; the openings of the eyes were straight and horizontal, not oblique; nose extremely flat and broad, particularly between the eyes, which were widely separated, being $1\frac{5}{8}$ inch apart; cartilages of the nose extremely flat upon the face, the distance from the lip to the tip of the nose being only $\frac{5}{8}$ths of an inch; the apertures of the nostrils were small, of an oval form, and their greatest diameter in a transverse direction; the cheek-bones were extremely prominent, this, with the great flatness of the nose, nearly brought these three points on the same plane; the lips were large and fleshy, and much turned out; the chin receded, and the angle of the jaw was obtuse; the ears were placed far back in the head, being three inches from the malar bones, but this might be caused chiefly by the projection of these bones; the ears were of moderate size, and well formed, but stood out in a slight degree from the head; there was a fold or border posterior to the tragus; the forehead high and broad, and the hair did not descend low on the forehead, the distance between the eyebrows and hair being two inches; the vertex was broad and flat, and the parietal protuberances very prominent.

MEASUREMENTS.

	Ft.	In.
Height of body,	4	7
Length of arm from the point of the acromion,	2	0
,, leg from the superior spinous process,	2	6½
Circumference of chest over nipple,	2	1½
,, round hips,	1	9
,, of head,	1	8¼
Longitudinal diameter of head,	0	6⅞
Parietal diameter of head,	0	5½
Frontal diameter of head,	0	4⅜
Length of head and face,	0	7½
Zygomatic diameter of head and face,	0	4⅞

After a most careful dissection of the whole body, no peculiarity either as regards the form or structure of the soft parts was observed. The skeleton is preserved and placed in the Museum; also, several diseased organs in the pathological department.

SECTIO CADAVERIS, SIXTY HOURS AFTER DEATH.

External Appearances.—Body emaciated; abdomen tumid; and fæculent matter oozed from an opening in the navel.

Cranium.—Brain healthy, and nothing unusual in the appearance or in the structure of the cortical or medullary substance, nor in the size of the nerves, was discovered; weight of brain, 2 lbs. 8 oz. 4 drs.

Thorax.—The pericardium adhered firmly and universally to the surface of the heart by adhesions of old standing; they could, however, be broken down, which showed the serous membrane to be opaque; there were also small opaque bodies of a scrofulous character deposited on its surface. The heart and ventricles were of the usual size for a boy of the supposed age, and free from disease; weight, 7 oz. 2 drs.

Larynx, trachea, and lungs healthy.

Abdomen.—This cavity showed most extensive disease. The intestines and viscera were matted together, and the convolutions adhered very firmly to one another, rendering it impossible to separate them, and formed one continuous surface, which again at several parts adhered to the walls of the abdomen; by this means several sacs were formed, which were filled with fæculent matter; on the surface of the intestines there were numerous openings which communicated with the interior of both small and large intestines, and had allowed their contents to escape; the whole of the peritoneum was very rough and irregular from the deposition of scrofulous bodies, varying from the size of a pin's head to that of a bean, some of them of firm consistence, others in a state of softening; these scrofulous bodies were deposited in the peritoneal coat, or in the cellular substance beneath, many of them, having become large and softened, had burst both into the interior of the gut and the cavity of the abdomen. On opening the intestines at several places a few small oval ulcers were found; these were also produced by the bursting of the softened scrofulous deposits into the intestines only; the omentum was much contracted, and adhered to the walls immediately below the arch of the colon. The stomach was of the usual form, as also the caput cæcum, to which was attached a vermiform process. The liver adhered very firmly to the diaphragm and surrounding parts, and the same scrofulous deposits were found in its peritoneal covering; it was of the usual form, and its structure was healthy; weight, 2 lbs. 2 drs. The spleen adhered to the neighbouring parts; structure healthy. Supra-renal capsules and kidneys healthy: weight of right kidney, 4 oz. 2 drs.; left, 4 ozs. 4 drs. Pancreas, urinary bladder, testicles, and vesiculæ seminales of the usual form, and healthy in structure.—*This Bushman was presented to the Museum by Alexander Smith, M. D., Staff Surgeon, Second Class, Maidstone.*

MEASUREMENTS OF THE CRANIA.

The measurements were taken in the following manner:—

The *longitudinal diameter* is measured from the most prominent part of the os frontis between the superciliary ridges to the most prominent or distant part of the occiput.

The *parietal diameter* is measured from the most distant points of the parietal bones, or from the protuberances.

The *frontal diameter* is taken between the anterior and inferior angles of the parietal bones.

The *vertical diameter* is measured from the fossa, between the condyles of the occipital bone, to the top of the skull.

The *intermastoid arch* is measured with a graduated tape from the point of one mastoid process to the other, over the external table of the skull.

The *intermastoid line* is the distance in a straight line between the points of the mastoid processes.

The *occipito-frontal arch* is measured by a tape on the surface of the cranium from the suture between the frontal and nasal bones to the posterior margin of the foramen magnum.

The *horizontal periphery* is measured by passing a tape around the cranium, so as to touch the os frontis immediately above the superciliary ridges, and the most prominent part of the occipital bone.

The *length of the head and face* is measured from the margin of the upper jaw to the most distant point of the occiput.

The *zygomatic diameter* is the distance in a right line between the most prominent points of the zygoma.

The facial angle of Professor Camper was at first taken by an instrument recommended by Mr. Morton, but this was found to be very tedious, and required considerable time, with a frequent adjustment of the different slides and screws of the instrument to take one angle. A very simple method was devised, by which thirty to forty angles could be taken in an hour: it would be impossible to make a description of it intelligible without the aid of a drawing. The accuracy of this instrument was tested in various ways, and found to be correct. Another angle has been given: this was taken by placing the cranium resting on the upper jaw.

For ascertaining the internal capacity of the cranium, vessels were first procured, which were divided into cubic inches. To measure the internal capacity, the foramina were stopped with cotton, and the cavity was filled with white pepper seed poured into the foramen magnum until it reached the surface, and well shaken in order to pack the seed : the contents were then transferred to the graduated measures, and the capacity of the cranium at once read off.

Capacity of the coronal region.—This measurement is the space included between an imaginary plane, drawn through the centres of ossification of the parietal and frontal bones, and the inner surface of the portion of the cranium above it. The sutures or small foramina on the top of the skull were stopped with wax or putty; the centres of ossification of the parietal and frontal bones were marked ; the cranium was then inverted and placed in the oval hole of the apparatus (*vide* Morton's Crania Americana) and the points of the slides were pressed against the centres of ossification of the parietal and frontal bones. The mercury was then transferred to the graduated glass measure, and the capacity of the coronal region read off in cubic inches and parts.

The *subcoronal region* was ascertained by deducting the capacity of the coronal region, obtained as above stated, from the total capacity.

Capacity of the anterior chamber.—Lines were drawn by means of a carpenter's square and a straight-edge over the anterior margin of the foramen magnum, and through the centre of ossification of the parietal bones, so as to divide the cranium into an anterior and posterior chamber. Pepper seed was then poured into the skull, which was now held in the left hand with the face resting on the palm, the seed being well packed, and, by means of a stiff piece of steel, the seeds were drawn out until the surface of the seeds corresponded with the anterior margin of the foramen magnum and the lines through the centres of ossification of the parietal bones. The seeds were then transferred to the graduated measures.

The *capacity of the posterior chamber* was obtained by deducting the capacity of the anterior chamber from that of the whole cranium.

The whole of the measurements of the internal capacity of the cranium were taken exactly as described in Mr. Morton's Crania Americana, to which I must refer, as it would be impossible to make them understood without the aid of drawings. The capacities of the anterior and posterior chambers, the coronal and subcoronal regions, are very difficult to take accurately; they will be found to be as correct as it is possible to make them; these measurements were, however, taken in the same manner in the whole of the crania, and a comparison may therefore be made between the different races from the results.

All the other measurements can be depended upon, as no error can possibly occur if moderate care is taken.

ANATOMICAL MEASUREMENTS IN INCHES, ETC.

Longitudinal Diameter.—*Greatest.*—Esquimaux, 7·6; English, Kaffirs, New Zealand, 7·4; Chinese, 7·3; Mandingo, Mauritius, 7·2; *Least.*—Greek, 6·4; Albanian, French, Spanish, Bushman, Sandwich Isles, Burmese, American Indians, 6·7; Ashantee, Hottentot, 7·0; German, Egyptian, Beloochee, Affghan, Brahmin, Gentoo, Hindoo, Singalese, Mozambique, Madagascar, New South Wales, Van Diemen's Land, 7·1.

Parietal Diameter.—*Greatest.*—German, 5·7; American Indian, 5·5; English, Albanian, Van Diemen's Land, 5·4; Greek, French, Spanish, Brahmin, Gentoo, Hindoo, 5·3. *Least.*—Ashantee, Mauritius, 5·0; Madagascar, Singhalese, Mandingo, Bushman, Mozambique, New South Wales, Sandwich Isles, Esquimaux, 5·1; Egyptian, Beloochee, Affghan, Kaffir, Hottentot, Burmese, Chinese, New Zealand, 5·2.

FRONTAL DIAMETER.—*Greatest.*—German, 5; French, Spanish, English, 4·5; Greek, Albanian, 4·4; Beloochee, Affghan, Esquimaux, American Indian, 4·3; Madagascar, Mozambique, New Zealand, 4·2. *Least.*—Van Diemen's Land, 3·6; Bushman, 3·7; Brahmin, Hindoo, Gentoo, Singalese, Mandingo, Ashantee, Hottentot, Mauritius, New South Wales, Sandwich Islands, 4; Egyptian, Kaffirs, Burmese, Chinese, 4·1.

VERTICAL DIAMETER.—*Greatest.*—Esquimaux, Ashantee, 5·4; French, Spanish, 5·2; Albanian, English, Egyptian, Beloochee, Affghan, Singalese, Mandingo, Kaffir, Mauritius, New Zealand, Sandwich Islands, Burmese, Chinese, 5·1. *Least.*—American Indian, 4·5; Bushman, 4·6; Van Diemen's Land, Hottentot, German, 4·7; Greek, Brahmin, Gentoo, Hindoo, Mozambique, Madagascar, New South Wales, 5.

INTERMASTOID ARCH.—*Greatest.*—German, 15·3; Mauritius, Burmese, 15; French, Spanish, English, Beloochee, Affghan, New Zealand, Esquimaux, 14·7; Chinese, Mandingo, Singalese, Greeks, Albanians, 14·6; Kaffir, American Indian, 14·5; Brahmin, Gentoo, Hindoo, Ashantee, 14·4. *Least.*—Bushman, 13·5; Van Dieman's Land, 14; Hottentot, 14·1; Sandwich Islands, 14·2; Egyptian, Mozambique, Madagascar, New South Wales, 14·3.

INTERMASTOID LINE.—*Greatest.*—German, 4·4; Esquimaux, American Indian, 4·3; New Zealand, New South Wales, 4·2; Greek, English, Brahmin, Gentoo, Hindoo, Kaffirs, Mozambique, Madagascar, 4·1. *Least.*—Chinese, Bushman, Hottentot, Ashantee, 3·7; Albanian, French, Spanish, Egyptian, Beloochee, Affghan, Singalese, Mandingo, Mauritius, Van Diemen's Land, Sandwich Islands, Burmese, 4.

OCCIPITO-FRONTAL ARCH.—*Greatest.*—Esquimaux, 15·4; English, 15·1; Kaffirs, Chinese, 15; Mandingo, 14·7; German, 14·6. *Least.*—American Indian, 13·5; Greek, 14·1; Albanian, Hottentot, Bushman, Sandwich Islands, Burmese, 14·2; Egyptian, Beloochee, Affghan, Singalese, Ashantee, 14·3; French, Spanish, Brahmin, Gentoo, Hindoo, Madagascar, Mozambique, Mauritius, New South Wales, Van Diemen's Land, New Zealand, 14·5.

HORIZONTAL PERIPHERY.—*Greatest.*—English, 26·6; Esquimaux, 21; German, 20·6; Kaffir, New Zealand, 20·5; Mandingo, 20·1; French, Spanish, Beloochee, Affghan, Mozambique, Madagascar, Mauritius, Van Diemen's Land, 20. *Least.*—Greek, 19·1; Bushman, American Indians, Sandwich Islands, 19·4; Albanian, Ashantee, New South Wales, Burmese, 19·5; Egyptian, Brahmin, Gentoo, Hindoo, Singalese, Hottentot, 19·6; Chinese, 19·7.

LENGTH OF HEAD AND FACE.—*Greatest.*—Esquimaux, 8·6; Kaffir, 8·4; Mauritius, 8·3; New Zealand, New South Wales, Mandingo, 8·2; Mozambique, Madagascar, 8·1; English, Beloochee, Affghan, Singalese, 8. *Least.* — German, Bushman, 7·3; Greek, 7·4; Albanian, 7·5; Brahmin, Gentoo, Hindoo, Sandwich Islands, Burmese; French, Spanish, Hottentot, Van Diemen's Land, Chinese, American Indian, Egyptian, 7·7.

Zygomatic Diameter.—*Greatest.*—Esquimaux, 5·4; German, English, 5·3; Albanian, Kaffir, Mauritius, New Zealand, American Indian, 5·2; Greek, Beloochee, Affghan, Mandingo, Burmese, Chinese, 5·1; French, Spanish, Mozambique, Madagascar, New South Wales, Egyptian, 5. *Least.* — Hottentot, 4·3; Bushman, 4·4; Van Diemen's Land, 4·5; Ashantee, 4·6; Brahmin, Hindoo, Gentoo, Singalese, Sandwich Islands, 4·7.

Internal Capacity. — *Greatest.* — German, Esquimaux, 100; English, 97·1; French, Spanish, 96; Albanian, 95·5; Chinese, 93; Kaffir, 92·2; Mozambique, Madagascar, 91·5; New Zealand, 90·5; Beloochee, Affghan, 89·3; Mandingo, 89; Egyptian, 88·6; Greek, 88·4. *Least.*—Van Diemen's Land, 78·5; Ashantee, 79·1; Hottentot, 79·6; Bushman, 79·8; American Indian, 80; New South Wales, 80·2; Sandwich Islands, 80·5; Brahmin, Hindoo, Gentoo, 84·4; Mauritius, 85·5; Singalese, 86·8; Burmese, 87·7.

Capacity of the Anterior Chamber. — *Greatest.*—German, 51; Greek, 44·7; Albanian, 43·3; English, 43·1; French, Spanish, 42·5; Chinese, 41·3; Beloochee, Affghan, 40·7; Esquimaux, 40; Mandingo, 39·6; Egyptian, 38·2; Singalese, 37·8; Burmese, 37·7; *Least.*—American Indians, 32·2; New South Wales, 32·8; Ashantee, 32·9; Van Diemen's Land, 33; Hottentot, Sandwich Islands, 33·1; Bushman, Mauritius, 34; Madagascar, Mozambique, 34·7; New Zealand, 35·6; Brahmin, Gentoo, Hindoo, 36·2; Kaffir, 37·2.

Capacity of the Posterior Chamber.—*Greatest.*—Esquimaux, 66; Mozambique, Madagascar, 56·7; Kaffirs, 55·1; New Zealand, 54·6; English, 53·7; French, Spanish, 53·5; Chinese, 51·6; Mauritius, Albanian, 51·5; Egyptian, 50·4; Burmese, 50. *Least.*—Greek, 44·3; Van Diemen's Land, 45·5; Bushman, 46·1; Hottentot, Ashantee, 46·5; Sandwich Islands, 47·3; New South Wales, Mandingo, 47·4; American Indian, 47·7; Brahmin, Hindoo, Gentoo, 48·2; Beloochee, Affghan, 48·4; German, Singalese, 49.

Capacity of the Coronal Region.—*Greatest.*—German, 26; Albanian, Esquimaux, 24; Beloochee, Affghan, 23·1; English, Greek, 22·9; Van Diemen's Land, 22·5; Chinese, 22·3; Egyptian, 22·1; Kaffirs, 21·5; Singalese, 21·4. *Least.* — Mauritius, New South Wales, 18·5; Sandwich Islands, Hottentot, 19·1; Brahmin, Gentoo, Hindoo, 19·3; Mozambique, Madagascar, 19·7; American Indian, French, Spanish, 20; Bushman, 20·1; New Zealand, 20·5; Mandingo, 20·8.

Capacity of the Subcoronal Region.—*Greatest.*—Esquimaux, 82; French, Spanish, 76; English, 74·1; German, 74; Mozambique, Madagascar, 72·2; Albanian, Kaffir, 71; Chinese, 70·3; New Zealand, 70; Mandingo, 68·2; Egyptian, 68·1; Burmese, 67·4. *Least.*—Van Diemen's Land, 56; Ashantee, 58·4; Bushman, 59·6; American Indians, 60; Hottentot, 60·5; Sandwich Islands, 61·3;

New South Wales, 62·7; Brahmin, Gentoo, Hindoo, 65·2; Singalese, 65·4; Greek, 65·6; Beloochee, Affghan, Mauritius, 67.

Weight of the Skull without the Upper Jaw.—*Greatest.*—New Zealand, 1 lb. 10 ozs. 3 drs.; Mauritius, Kaffir, 1 lb. 9 oz. 4 drs.; Mandingo, 1 lb. 8 oz.; English, 1 lb. 7 oz. 5 drs.; New South Wales, Egyptian, 1 lb. 6 oz. 3 drs.; French, Spanish, 1 lb. 6 oz. 1 dr.; Van Diemen's Land, 1 lb. 5 oz. 5 drs.; Hottentot, Albanian, 1 lb. 5 oz. 3 drs.; Beloochee, 1 lb. 5 oz. 2 drs. *Least.* — Mozambique, Madagascar, 1 lb. 2 oz. 2 drs.; Ashantee, 1 lb. 3 oz. 2 drs.; Bushman, 1 lb. 3 ozs. 3 drs.; Burmese, 1 lb. 6 oz.; Chinese, 1 lb. 4 oz.; American Indian, 1 lb. 4 oz. 4 drs.; Sandwich Islands, 1 lb. 4 ozs. 5 drs.; Brahmin, Gentoo, Hindoo, 1 lb. 4 ozs. 6 drs.; Greek, Singalese, Esquimaux, 1 lb. 5 oz.

Facial Angle of Camper.—*Greatest.*—German, 78°·30; Bushman, 77°·5; Brahmin, Gentoo, Hindoo, 76°; Ashantee, 74°·5; Hottentot, 73°·51; Egyptian, 73°·48; Beloochee, Affghan, 73°·42; Van Diemen's Land, 73°·30; Greek, 73°·16; Sandwich Islands, 73°·15; Mandingo, 73°·12; French, Spanish, 73°. *Least.*—American Indian, 69°; Albanian, 70°·20; Mozambique, Madagascar, 70°·45; Singalese, 71°; Mauritius, 71°·30; New Zealand, Esquimaux, 72°; Chinese, 72°·20; New South Wales, 72°·24; Kaffir, 72°·37; English, 72°·45; Burmese, 72°·47.

Facial Angle, with the Head resting on the Upper Jaw.—*Greatest.*—German, 87°·30; Brahmin, 83°·14; Greek, 83°·2; Albanian, Van Diemen's Land, Chinese, 81°·20; Beloochee, Affghan, 81°·8; Bushman, Sandwich Islands, 81°; English, 80°·50; Egyptian, 80°·12; New Zealand, French, Spanish, 80. *Least.*—American Indian, 74°; Mauritius, 75°; Mozambique, Madagascar, 75°·15; New South Wales, Singalese, 77°·12; Kaffir, Mandingo, 77°·24; Esquimaux, 78°; Ashantee, 78°·16; Hottentot, 78°·51; Burmese, 79°·53.

The Table on the next page shows that ossa triquetra, or Wormian bones, are found as frequently in the occipital suture in the Negro as in the European, and that they are more frequently of large size, cutting off the superior angle of the occipital bone in the former: also the number of instances in which the sphenoid is cut off from the parietal bone by a process of the temporal; the lachrymal groove formed entirely on the nasal process of the superior maxillary bone; a suture in the centre of the frontal bone, and the size of the occipital foramen in the different races. Any further remarks on this subject are unnecessary, as the Table is explicit, and shows the comparative frequency of the various points mentioned.

	Nation or Tribe.	Number of Crania.	Small Ossa Triquetra, or Wormian Bones in the occipital Suture in	In addition to the small Ossa Triquetra, one, two, or more large Ossa Triquetra cutting off the superior Angle of the Occipital Bone in	Wormian Bones in the temporal and sphenoid Sutures in	Sphenoid entirely cut off from the Parietal by a process of the Temporal Bone in	Lachrymal Groove formed entirely on the Nasal Process of the superior Maxillary Bone in	Suture in the centre of the Frontal Bone in	Occipital Foramen large in	Occipital Foramen small in
Oval-shaped Skulls	Grecian, ...	26	10	. . . . .	6	. . .	. . .	4	. .	1
	Albanian, . . .	1	. .	1	1					
	Maltese, ...	2	1	. . . . .	1	. . .	. . .	. .	. .	1
	German, ...	2	2							
	French, ...	1	1							
	Spanish, ...	3	1	. . . . .	1	. . .	. . .	. .	. .	1
	Natives of Great Britain, . . .	87	38	1	8	. . .	. . .	8	3	4
	Maniacs and Idiots, . . .	82	40	2	7	. . .	. . .	7	5	7
	Egyptian, . . .	11	3	. . . . .	3	. . .	. . .	. .	1	3
	Affghan, ...	15	4	. . . . .	2	. . .	. . .	2	. .	3
	East Indian, . .	25	11	. . . . .	3	2	1	. .	1	5
	Singalese, . . .	5	1	1	1	. . .	. . .	. .	. .	1
	Total, . .	260	112	5	33	2	1	21	10	26
Skulls with prognathous Jaws, or the Nasal Bones flat and on the same plane. Negro from the West Coast of Africa.	Mandingo, . . .	4	2	. . . . .	. .	. . .	2	. .	. .	2
	Iolof, ...	1								
	Timmani, . . .	3	1	2	1					
	Sosoo, ...	2	1	. . . . .	1	. . .	. . .	. .	. .	1
	Kosso, ...	3	2	1	. .	1	. . .	. .	1	
	Krooman, . . .	5	2	1	. .	1	. . .	1		
	Hansa, ...	1								
	Fantie, ...	1	. .	1						
	Attan or Appas,	2	2							
	Papas or Mahai,	3	1							
	Barconka or Moka, . . .	2	2	. . . . .	2					
	Ibo, ...	10	4	. . . . .	. .	2	. . .	1	1	
	Ashantee, . . .	61	37	2	4	6	9	1	2	4
	Colabar, ...	4	3	1	1	1				
	Kaunga, ...	3	3	. . . . .	1					
	Congo, ...	3	2							
	Miscellaneous Africans, . .	20	10	4	. .	2	. . .	1	1	6
	Total, . .	128	72	12	10	13	11	4	5	13
Skulls with prognathous Jaws, or the Nasal Bones flat and on the same plane.	Kaffir, ...	15	8	. . . . .	2	. . .	1	. .	2	2
	Hottentot, . . .	7	4	. . . . .	. .	2	1	. .	. .	1
	Bushman, . . .	10	5	. . . . .	1					
	Total, . .	32	17	. . . . .	3	2	2	. .	2	3
	Mozambique, .	1	1							
	Madagascar, . .	3	2							
	Mauritius, . . .	2	1	. . . . .	2					
	New South Wales,	10	7	. . . . .	. .	. . .	1	. .	. .	2
	Van Dieman's Land, . . .	2	1	. . . . .	1					
	Total, . .	18	12	. . . . .	3	. . .	1	. .	. .	2
Oval Skulls.	New Zealanders,	4	2	. . . . .	1					
Skull with prominent superciliary ridge.	Sandwich Islands, . . .	5	3	. . . .	. .	1				
Oval Skulls.	Otaheitean, . .	1								
Broad-faced Skulls.	Burmese and Malays, . .	9	5	1	3	. . .	1	1	1	2
	Chinese, ...	3	3	. . . . .	.	. . .	1			
	Esquimaux, . .	1	. .	1						
	American Indians, . . .	4	1	. . . . .	. .	1				
	Total, . .	17	9	2	3	1	1	2	1	2

Besides the above, of which the external measurements, internal capacity, and facial angle have been minutely and accurately taken, the following have since been added in the Appendix to the Catalogue:—

Crania of convicted murderers,	5
,, English,	1
,, Russian (Crimea),	3
,, Modern Greek, Constantinople,	5
,, Armenian, ,,	1
,, Jews, ,,	1
,, Gipsy, ,,	1
,, Turks, ,,	5
,, Sikhs,	2
,, Bengalese,	2
,, Singalese,	2
,, Malabar,	5
,, West Coast of Africa,	5
,, Kaffir,	10
,, Hottentot,	4
,, New South Wales,	5
,, Van Diemen's Land,	2
,, New Zealand,	3
,, Fejee Island,	1
,, Burmese,	2
,, North American Indian,	8
Total,	73

The following casts are also contained in the Collection:—

Casts of European crania, 16 of which are of malefactors who were executed,	22
,, African crania,	2
,, American crania,	1
,, Australian crania,	2
Making a total of,	27

No. 4. Skull of John, *alias* Rocky Whelan, hanged June, 1855, at Hobart Town, Van Diemen's Land, for robbery under arms. Confessed to the murder of five persons. He made his victim walk before him to the place of burial, and there shot him, robbed him, and then threw him into the ravine.—Forehead rather low and receding; posterior part of the cranium rather large; vertex broad and arched; sutures anchylosed.—*Donor*, *Dr. Atkinson, D. I. G.*

No. 7. Russian skull, from the Crimea.—Cranium oval and unsymmetrical; the right side of the frontal bone and left side of the occiput are considerably depressed; forehead rather low and receding; skull otherwise well formed; nasal ridge highly arched.

No. 15. Skull from the Armenian burial-ground at Scutari, on the road to Kollalie.—Skull large and well formed; forehead rather retreating and small compared to the posterior part of the cranium; vertex broad and well arched.—*Presented by G. Williamson, S. S., 2nd Class.*

No. 16. Skull from the Jews' burial-ground, on the road to Kollalie.—Forehead low and receding; posterior part of the cranium large compared to the anterior; superciliary ridge high and very prominent; nasal bones arched, with a depression at their root.—*Same Donor.*

No. 17. Skull of a Gipsy, from Constantinople.—Cranium oval and well formed; forehead high; vertex well arched, and occiput well rounded; a suture in the centre of the frontal bone; nasal ridge well arched; alveolar processes perpendicular.—*Same Donor.*

No. 18. Skull from the Turkish burial-ground at Scutari. —Cranium large, round, and very capacious; forehead high; vertex high, and very well arched; occiput rounded; space for the downward development of the cerebellum considerable; nasal bones well arched.—*Same Donor.*

No. 19. Skull from the Turkish burial-ground at Scutari. —Cranium very large and capacious, and exceedingly well arched; forehead high and broad; vertex high, and occiput well rounded; facial bones well placed; the alveolar processes perpendicular, and the facial angle very high; lachrymal canal large.—*Same Donor.*

No. 23. Skull of a Sikh soldier, taken from the field of Gujerat a few days after the action on the 21st February, 1849.—Cranium has all the characters of the oval or symmetrical skulls, but it is not well formed, the anterior part of the head being rather narrow; parietal protuberance rather prominent; nasal ridge high and well arched. — *Presented by G. W. Staunton, Esq., A. S., 9th Lancers.*

No. 30. Skull of a Malabar male, aged 69. — Cranium small, but well formed; nasal ridge arched; anterior nasal aperture wide and smooth at the lower part; alveolar processes projecting.—*Presented by Dr. Roe, I. G.*

No. 32. Skull of a Malabar female, aged 26.—Forehead small; nasal ridge arched, with a deep depression at its roots; lower part of the anterior nasal aperture large and rounded off; alveolar processes broad and projecting.—*Same Donor.*

No. 53. Skull of a native of New South Wales.—Cranium oval and well formed; forehead rather receding; space at the base of the skull for the downward development of the brain of considerable extent; several ossa triquetra; ridge for the origin of the temporal muscle of great extent; superciliary ridge prominent; nasal bones arched; anterior nasal aperture of the European form; alveolar processes of upper jaw hardly projecting; teeth deeply inserted into the alveolar processes; a deep depression on the malar bone, immediately below the external angular process of the frontal bone.

No. 55. Skull of a native of New South Wales, belonging to a tribe occupying a portion of the Darling Downs, Moreton Bay. —Cranium narrow; forehead low and receding; a ridge along the sagittal suture: superciliary ridge very prominent; external angle of the frontal bone large and strong, and the ridge leading upward from it very prominent and strongly marked; a very deep depression on the malar bone; Wormian bones in the lambdoidal and sphenoid sutures; nasal bones, and part of the right superior maxillary bone, destroyed; alveolar processes deep and projecting.—*Presented by Dr. Marshall, A.S., 11th Regiment.*

No. 56.—Skull of an aboriginal native of New South Wales district, New England, who committed murder, and was afterwards murdered by another of his tribe.—Cranium oval; forehead low and receding; a slight elevation along the sagittal suture; great protuberance at the superior transverse ridge on the occipital bone, which is very strong and well marked; superciliary ridge not strongly marked; a deep depression on the malar bone, immediately below the prominent external angle of the frontal bone; nasal ridge arched; anterior nasal aperture broad, and rounded off inferiorly; alveolar processes projecting.—*Presented by Dr. Shanks, D. I. G.*

No. 57. Skull of a native woman of the Lischenault district, Western Australia.—Cranium oval and well formed; forehead rather low and receding; a deep depression at the junction of the frontal and nasal bones; nasal bones arched; anterior nasal aperture broad, and rounded off inferiorly; a depression on the malar bones, below the external angle of the frontal bone; alveolar processes and superior maxillary bones projecting in front of the body of the bone; surface of the teeth worn quite smooth, and of a dark colour.—*Presented by T. Treen, Esq.*

No. 58. Skull of a native of Van Diemen's Land.—Cranium oval; forehead rather low; a ridge along the vertex, and shelving on each side; occiput and parietal protuberances rather prominent; superciliary ridge slightly marked; face short, and the bones small; breadth between the eyes rather great, and a slight depression at the root of the nasal bones; a depression on the malar bones, below the external angular process of the frontal; anterior nasal aperture is rounded off at the lower part; alveolar processes are short, and do not project.

No. 59. Skull of a native of Van Diemen's Land.—Cranium oval; forehead rather low and receding; superciliary ridge marked; nasal bones small and arched, with a slight depression across their roots; anterior nasal aperture of the European form; alveolar processes do not project. This skull shows few of the characters found in the others from Van Diemen's Land.

No. 61. Skull of a New Zealander.—Cranium oval, and of a small size; forehead arched; vertex broad and well arched; neither the parietal protuberances nor the occiput project; no superciliary ridge; the space for the temporal muscle, immediately behind the external angular processes of the frontal bone, is sharp and angular; ridges for the insertion of muscles not strongly marked; face has a peculiar puckered appearance, difficult to describe; the frontal bone and nasal ridge are on the same level; nasal bones slightly arched; orbits shallow, and contracted at the nasal side by the bulging outwards of the ethnoid bone and orbital plate of the superior maxillary; anterior nasal aperture of the European form; alveolar processes slightly projecting.

No. 62. Skull of a New Zealander.—Cranium oval, and rather long and narrow; forehead low and receding; vertex well arched; ridges for the insertion of muscles not strongly marked; superciliary ridge marked; nasal bones well arched; anterior nasal aperture of the European form; alveolar processes projecting, but not the body of the upper jaw; and the insertion of the teeth are distinctly marked externally by deep grooves; teeth sound and healthy, and smooth on the surface.

No. 63. Skull of a Feejee Islander.—Cranium oval and not symmetrical posteriorly, the left side of the occipital bone being much depressed and flattened; forehead low and receding; vertex well arched, and the parietal protuberance rather prominent; several of the sutures anchylosed; ridges for the attachment of muscles not great; superciliary ridge rather prominent; nasal bones small, but arched, and the nasal processes of superior maxillary not flat, but stands erect; anterior nasal aperture of the European form; alveolar processes slightly projecting.

No. 64. Skull of a Burmese (male).—Cranium large and of a square form; forehead broad, flat, and receding; vertex very broad and slightly arched; posterior part of the cranium broad, flat, and quite perpendicular. The space for the downward development of the brain is extensive; transverse diameter of the skull great compared to the anterior; ridge for the attachment of muscles not great; superciliary ridge marked; suture anchylosed. Face broad and flat; breadth between the eyes is not great; nasal bones arched; anterior nasal aperture of the European form; alveolar processes slightly projecting, surface of the teeth smooth and flat; and their sides covered with a dark incrustation.—*Donor, J. R. Taylor, Esq.*, 80*th Regt.*

No. 65. Skull of a Burmese (female).—Cranium of a square form; forehead high and well arched; superciliary ridge not marked; vertex broad and well arched; occiput broad, flat, and perpendicular; space for the downward development of the cerebellum great; transverse diameter of the skull great compared to the antero-posterior; face broad and flat; great breadth between the eyes; nasal bones almost flat; anterior nasal aperture wide and rounded off at the lower part; alveolar processes projecting; teeth covered with a dark incrustation, but their surfaces smooth.—*Same Donor.*

No. 67. Skull of a North American Indian from Lake Huron, probably one of the Huron Tribe. It appears to have belonged to a young person.—Cranium oval and well formed; forehead high and well arched; and without any superciliary ridges; vertex broad and flat; parietal protuberances prominent; occiput rounded; large ossa Wormiana in the lambdoid suture. Base of the skull presents nothing peculiar; great breadth between the eyes; nasal bones almost flat; anterior nasal aperture large and of circular form; alveolar processes projecting.

No. 68. Skull of a North American Indian.—Cranium large and oval; forehead low and receding; superciliary ridge strong and well marked; vertex arched; occiput projecting; transverse diameter of the skull not greater than usual; considerable breadth between the eyes; nasal bones arched, outer margin of the superior maxillary bone, which forms the floor of the orbit, broad, thick, and rounded, as also the malar bone; a deep depression on the malar bone below the external angular process of the frontal bone; no depression at the infra-orbital fossa; alveolar processes not projecting; anterior nasal aperture rather wide, and rounded off at the lower part.—*Donor, Dr. Bawtree, A. S. Staff.*

No. 69. Skull of a North American Indian.—Cranium oval and rather narrow; forehead receding; vertex and occiput well arched; ridge for the attachment of muscles not well

MEASUREMENTS OF SEVEN SKELETONS.

SKELETONS.	Height.		Measurements of the Superior Extremity.					Measurements of the Lower Extremity.					Circumference of the widest part of the Chest.	Length of Spine to the Sacrum.	Measurements of the Pelvis.								Transverse Diameter of the Inferior Outlet from the Tuberosities of the Ischium.
			Length of the Superior Extremity.	Length of the Humerus.	Length of the Radius.	Length of the Ulna.	Length of the Hand.	Length of the Lower Extremity.	Length of the Femur.	Length of the Tibia.	Length of the Fibula.	Length of the Foot.			Length of the Sacrum.	Breadth of the Sacrum.	Transverse Diameter of the Crista ilii.	Distance from the Anterior and Superior Spinous Processes.	Antero-posterior Diameter of the Brim of the Pelvis.	Transverse Diameter of the Brim of the Pelvis.	Oblique Diameter of the Brim.	Circumference of the Brim.	
	Ft.	In	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.
Modern Greek (Male),	6	1½	32½	13½	10½	11½	8	38	19	16	16	10	34½	25¾	5¼	5	11½	10	4	5½	5	15½	4¼
Do. (do.)	5	7¾	30¼	13¼	9¾	10¾	7¼	35¼	18½	14½	14½	9½	33½	25¾	4½	5	11	10	4½	5½	5½	16¾	5
English (Male), .	4	10¼	26	11½	8½	9¼	6½	30	15¼	12¾	12¾	8½	26½	22	3¾	3½	9	8	3½	3¾	4	12¼	4
Do. (Female),	4	6½	23½	10½	7	7¾	6½	26¾	14¼	11	11	7½	25½	20	4¾	4	9	8	3¾	4¾	4½	14	4
Negro (Male), . .	5	2½	27½	11¼	9	10¼	7	33	16½	13¼	13¾	9½	30	22	5	4¾	10¾	9¾	4	5	4¾	14½	4
Hottentot (Female),	4	5½	23½	10	7½	8¼	6	29	15¼	12¼	12¼	7¼	26¼	17¼	4	3¾	7¾	6¾	3¾	4½	4½	13½	4¾
Bushman (Boy) .	4	5	22½	8¼	7½	8	6	27¾	14¼	12	11½	7¼	. .	18½	4½	3	7	6¼	3	3½	3¼	10½	3½
Chimpanzee, . . .	2	1	19	6½	6½	7¼	5¾	10	5	4½	4½	6½	15¼	8¾	1½	1	3½	4	2¾	1¼	2	5¾	1

marked; transverse diameter of the skull not greater than usual, nor the space for the downward development of the cerebellum. Superciliary ridges not well marked; face not broad; great breadth between the eyes; nasal bones square and flat, anterior nasal aperture of circular form; alveolar processes projecting; teeth small, and flat on the surface.—*Same Donor.*

No. 70. Skull of a North American Indian.—Cranium oval and well formed; forehead and vertex well arched; occiput rounded; transverse diameter of the base of the skull not greater than usual, nor the space for the downward development of the brain; superciliary ridge marked; face not broad; nasal bones arched, and the space between the eyes not great; anterior nasal aperture of the European form; alveolar processes slightly projecting.—*Same Donor.*

No. 71. Skull of a North American Indian—Cranium oval and well formed, with the exception of the forehead, somewhat receding; vertex and occiput well rounded; transverse diameter of the base of the skull not great, nor the space for the downward development of the cerebellum; superciliary ridge not marked; face not broad; breadth between the eyes not great; nasal bones arched, but not highly; anterior nasal aperture large and wide at the inferior part; alveolar processes projecting and everted.—*Same Donor.*

SKELETONS.

The different measurements of the crania belonging to these skeletons are given in the Tables, and the description of each will be found under the following:—Nos. 25 and 26, Greeks; 371, the Negro; 414, the Hottentot; 423, the Bushman; the skulls of the English, male and female, are not numbered, but are marked as such, and placed at the end of the tables of the crania. The table of measurements of the seven skeletons, on the opposite page, show that the greatest height is that of one of the modern Greeks; and the lowest, that of the female Hottentot and the Bushman boy.

In the two Greek skeletons the lower part of the chest is remarkably large and prominent, which is probably produced by the custom which prevails among the Greeks and Maltese of wearing a tight belt around the waist.

There is nothing peculiar in the English male and female skeletons, except that the former is much below the usual height, and the pelvis is of smaller size.

On comparing the Negro male, which is 5 ft. 2½ in., with the English male, which is 4 ft. 10¼ in., the measurements of the extremities are found to be proportionally greater in the Negro. The length of the spine is, however, exactly the same in both; the length and breadth of the sacrum is also greater in the Negro. The shortness of the spine is more than compensated in the Negro by the greater length of the lower extremities, which gives it a greater height than the European. The greater number of the measurements of the pelvis are also greater in proportion in the Negro, with the exception of the inferior outlet. The pelvis has somewhat of a square form; the skull appears to be placed somewhat further backwards on the spine, but this is only apparent, and is caused by the greater prominence of the occiput, and the posterior part of the cranium being large. The tibia and fibula are straight, and not more curved in front than in Europeans; the os calcis is arched. The number of the vertebræ is also the same; the bones of the pelvis, and those of the skeleton generally, do not differ in the slightest degree, with regard to form or texture, from the English or Greek. The English female is 4 ft. 6½ in. high, being one inch taller than the Hottentot. On comparing the Hottentot female with the English female, the length of the superior extremities is greater in proportion to the height in the Hottentot; the lower extremities are also longer in proportion. The hands and feet are small and remarkably well formed, particularly the former. The length of the spine is much less in the Hottentot: the breadth and length of the sacrum are well proportioned in comparison to the height of the skeleton; the transverse diameter from the crista ilii, and the distance from the anterior and superior spinous processes, are much less in the Hottentot; the antero-posterior, the transverse, and the oblique diameters, and the circumference of the brim of the pelvis, are nearly the same in both; the transverse diameter of the inferior outlet is much greater in the Hottentot. The Hottentot female appears not to have been fully grown, as the epiphyses of some of the bones are not united to the shafts. The bones are small, delicately made, and in form or texture there is nothing peculiar: the pelvis is oval, capacious, and well formed in every particular; the sternum is composed of fine bones, lying separately in one chain.

The points of the fingers in the Negro, Hottentot, as also in the two Greek and English male skeletons, reach as low as the middle of the femur; in the English female they reach to the lower part of the upper third of the femur. The difference in length of the spine in the Negro and Hottentot, compared to the English male and female skeletons, may be partly caused by the substance which is introduced to represent the intervertebral cartilage being somewhat smaller in them.

The Bushman skeleton is 4 ft. 5 in. in height, which is the same as the Hottentot female, and the measurements show that it is well proportioned in every part. The height immediately after death was 5 ft. 7 in. The epiphyses of all the bones are not united to the shafts; the length of the upper and lower extremities is one inch less than the Hottentot: the hands and feet are small and well formed. The length of the spine and sacrum is well proportioned, as also the sacrum. The sternum is composed of six bones:—first, the manubrium and one bone lying singly, then four bones in pairs; the lower portion of the sternum was not ossified. The pelvis of each skeleton, with the exception of the Negro, partakes more or less of the oval form.

THE END.

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